Income Statistics Division

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A Comparison of the Results of the Survey of Labour and Income Dynamics (SLID) and the Survey of Consumer Finances (SCF) 1993-1997: Update

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1. HIGHLIGHTS

- In 1993, the Survey of Labour and Income Dynamics (SLID) began to collect longitudinal labour market and income data. SLID is also capable of producing cross sectional data. In 1995 Statistics Canada decided to replace the Survey of Consumer Finances (SCF) by SLID for efficiency reasons.
- The estimates from these two surveys line up well. The major Statistics Canada income releases over the past five years would not have changed if they had been based on SLID, rather than SCF, results.
- The SLID and SCF samples both consist of two-thirds of the Labour Force Survey sample.
- In 1997, the average income of economic families was estimated at $59,100 by SLID and $57,100 by SCF. This difference is significant at the 95% level. The average income of unattached individuals was estimated at $24,700 in SLID and $25,000 in SCF. This difference is not statistically significant at the 95% level.
- In 1997, SLID's estimate of the number of economic families was 1.7% lower than SCF's estimate. For unattached individuals the difference was 0.3%.
- The average income for persons aged 16+ was the same in the two surveys.
- The SLID's higher count of income earners is linked to the use of tax data which contains more precise responses and has a higher frequency of small reported amounts. SLID shows more individuals with small amounts of income while SCF shows more individuals with no income.
- The distribution of total income is very similar in the two surveys, with the exception of the low income earners mentioned above, and the higher degree of rounding in SCF. The same differences exist in market income. (See definition, Section 3.1.)
- The proportion of the population in low income, based on before-tax income, was 18.2% in SLID and 17.5% in SCF. After-tax rates were 13.7% in SLID and 13.3% in SCF. These differences are not significant at the 95% level.
- The 1997 difference between SLID and SCF aggregate income was $8.7 billion (1.5%). The difference is not significant at the 95% level.
- Most estimates of average income components are lower in SLID than in SCF because of SLID's higher estimates of number of persons with income.
- With the exception of Alberta, estimates of average family income by province were not significantly different at the 95% level.
- With the exception of Nova Scotia, estimates of average income for unattached individuals by province were not significantly different at the 95% level.
- With the exception of Quebec, there were no significant differences in the provincial before tax or after tax low income rates for all persons.
- Because SLID is a longitudinal survey, new information is available on a number of important issues. This report provides some samples of this type of information.

2. INTRODUCTION

2.1 Background

In 1993, the Survey of Labour and Income Dynamics (SLID) began to collect longitudinal labour market and income data. SLID is also capable of producing annual cross-sectional data. In the case of income data, the survey content is very similar to the Survey of Consumer Finances (SCF). Statistics Canada decided in 1995 to replace the SCF by SLID, for efficiency reasons. However, the SCF is a survey of high stature and very wide usage. Clearly, the impact on the time series needed to be understood and minimized.

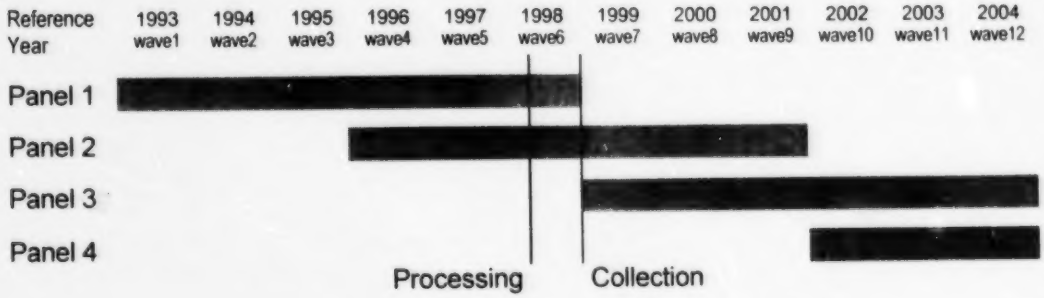
During the last few years, the SLID and SCF teams have worked together to document and reduce differences in the estimates. As this report shows, the estimates from the two sources line up very well and tell essentially the same story. Had the major Statistics Canada income releases over the past five years been based on SLID rather than SCF, the main messages reaching the public would have been no different.

SLID will replace SCF as of the 1998 reference year, with a generous period of overlap of five years between the two surveys. Apart from the efficiency reason for moving to SLID, there are information gains to be made. SLID has a very large selection of demographic, family and labour market variables available, in addition to the familiar income content. SLID offers a broad range of demographic and labour variables that can be used in both cross-sectional and longitudinal analyses.

This report presents results from the two sources for a variety of important time series. In addition, there is a selection of tables on income dynamics from SLID to provide a flavour of the new information now available due to SLID's longitudinal nature.

2.2 SLID and SCF Samples

SLID's first reference year was 1993, and in 1996 a second panel was introduced, doubling the sample size. This pattern of rotating, overlapping panels will continue with the introduction of panel three and the exit of panel one in 1999. At the time of release of this document, SLID was processing 1998 data. Collection of 1999 data will take place in January and May 2000.



The SCF sample consists of two-thirds of the Labour Force Survey (LFS) sample. In 1997 SCF had 53,000 responses from persons 15 years and over, for a response rate of 78%.

SLID's sample also consists of two-thirds of the Labour Force Survey sample. In addition to longitudinal respondents, SLID also interviews cohabitants – persons who live in households of longitudinal sample members. In 1997, SLID had 52,000 persons aged 16 years and over who responded to the income interview. Increased stability due to a longitudinal sample compensates for SLID's slightly smaller sample size.

A top-up sample had been planned to increase SLID's cross-sectional representation, but the top-up was cut for 1998 due to budget constraints. The need for top-up samples in the future will be assessed.

Attrition is always an issue in longitudinal surveys. In SLID adjustments are made to reduce the bias due to non-response by modeling the propensity to respond according to different characteristics of non-respondents. Longitudinal response rates are computed independently by panel since these rates can vary considerably depending on the number of years in sample. In 1997, 83.2% of those originally selected in panel one responded to the survey (after five years in sample) and 87.4% of panel two responded (after two years in sample).

2.3 Data Availability

SCF's practice has been to release before-tax data about 12 months after the end of the reference year with after-tax data following about 4 months later. SLID's approach is to release all the data at one time about 15 months after the end of the reference year. Data from SLID's first three waves were released about 30 months after the end of their reference years; 1997 was released 21 months after the end of the reference year. Processing will be caught up to the 15 month target by the time 1998 data are released.

3. RESULTS OF SLID AND SCF

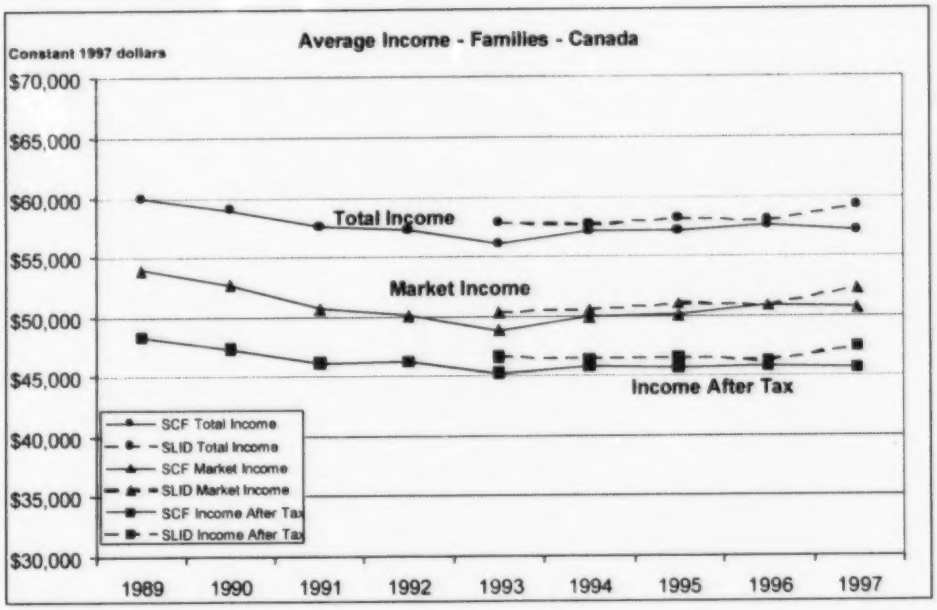
3.1 Average Income – Economic Families

In 1997, the average income of economic families was estimated at $57,100 by SCF and $59,100 by SLID. The difference is statistically significant at the 95% level.

These averages refer to total money income, called *total income* throughout this report. Two other income concepts are used routinely:

- *market income*, defined as pre-tax income from employment, investment and private pensions, and
- *income after tax*, defined as income after taxes and transfers – income after tax is calculated by adding government transfers to market income and subtracting income taxes.

Over the 1993-1996 period, SLID and SCF have produced very similar results for average market income and average income after tax for families; the SLID results are marginally and consistently higher, probably as a result of SLID's use of tax data.



These averages reflect similar underlying distributions, as shown by the Gini coefficients for 1997 (see table). Similarly, 1997 average incomes within quintiles line up very well.

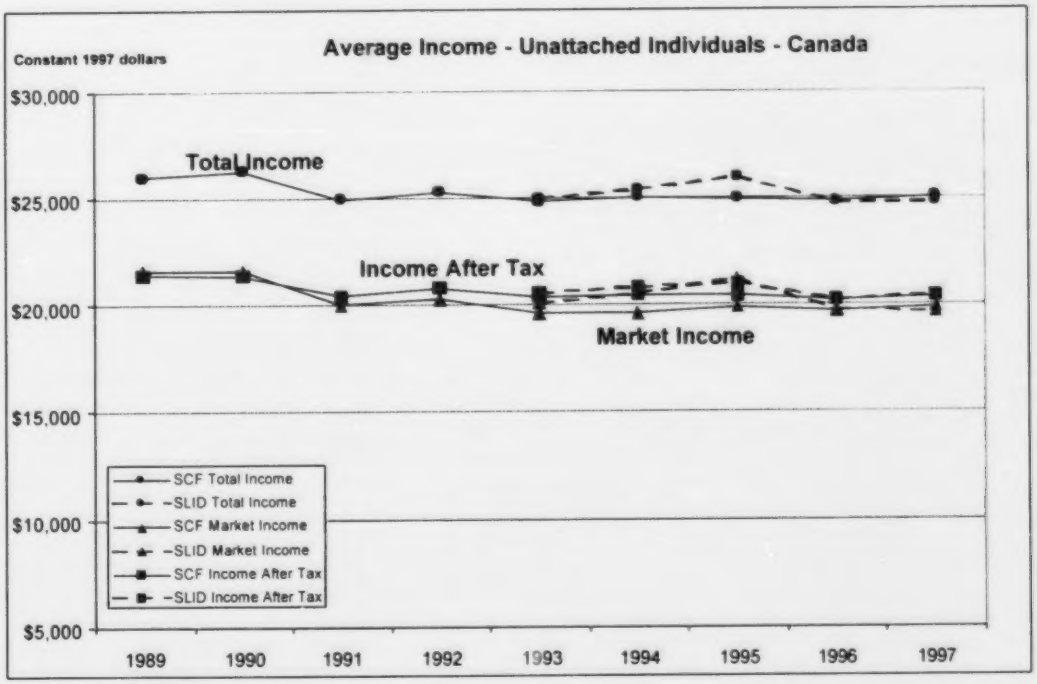
Gini Coefficients	SLID	SCF
Total Income	0.353	0.343
Market Income	0.435	0.425
Income After Tax	0.314	0.302
Average Income by Quintile		
Market Income	$	$
1st	5,800	5,400
2nd	26,000	25,700
3rd	45,100	44,800
4th	65,900	65,400
5th	117,700	112,100
Income After Tax	$	$
1st	17,100	16,900
2nd	30,500	30,000
3rd	42,300	41,200
4th	56,200	54,400
5th	90,500	85,500

3.2 Average Income – Unattached Individuals

For unattached individuals, average income in 1997 was $25,000 in SCF and $24,700 in SLID. The 1997 estimates for market and income after tax are also very close; the differences are not significant at the 95% level.

As for economic families, the Gini coefficients from the sources are very close.

Gini Coefficients	SLID	SCF
Total Income	0.406	0.397
Market Income	0.566	0.569
Income After Tax	0.356	0.342



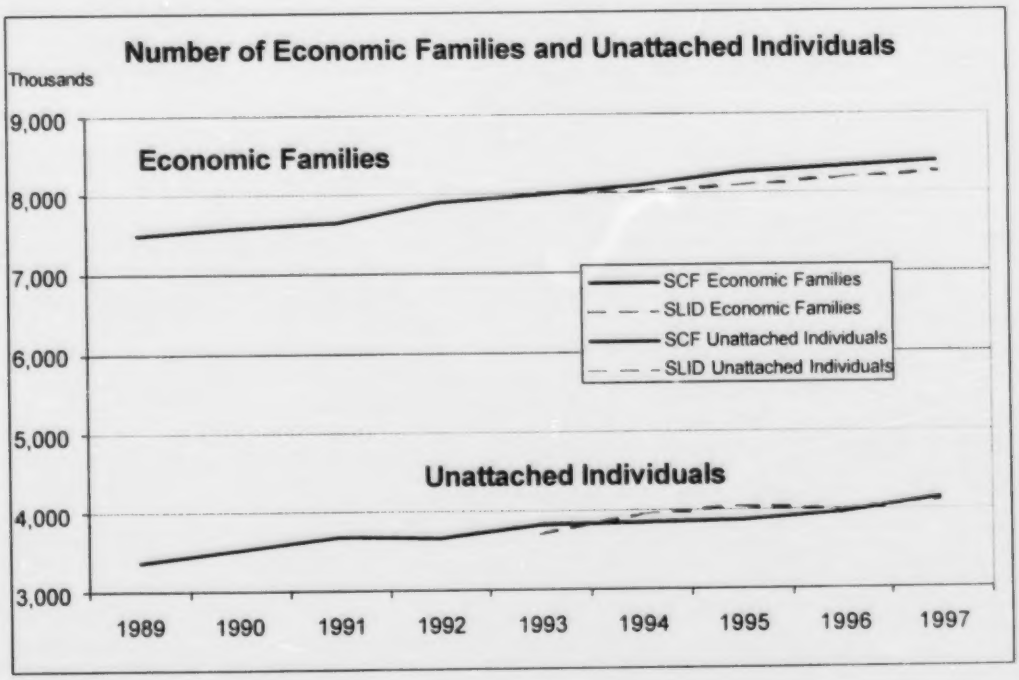
3.3 Unattached Individuals and Families

SLID and SCF have the same target population, but do not produce identical counts of economic families and unattached individuals. Reasons include sampling variability and response differences.

The differences are not large. In 1997, SLID's estimate of the number of economic families was 1.7% lower than SCF's estimate. For unattached individuals, the difference was 0.3%.

1997	SLID ('000)	SCF ('000)	Difference (SLID - SCF)	
			('000)	%
Economic Families	8,252	8,394	-142	-1.7
Unattached Individuals	4,111	4,125	-14	-0.3

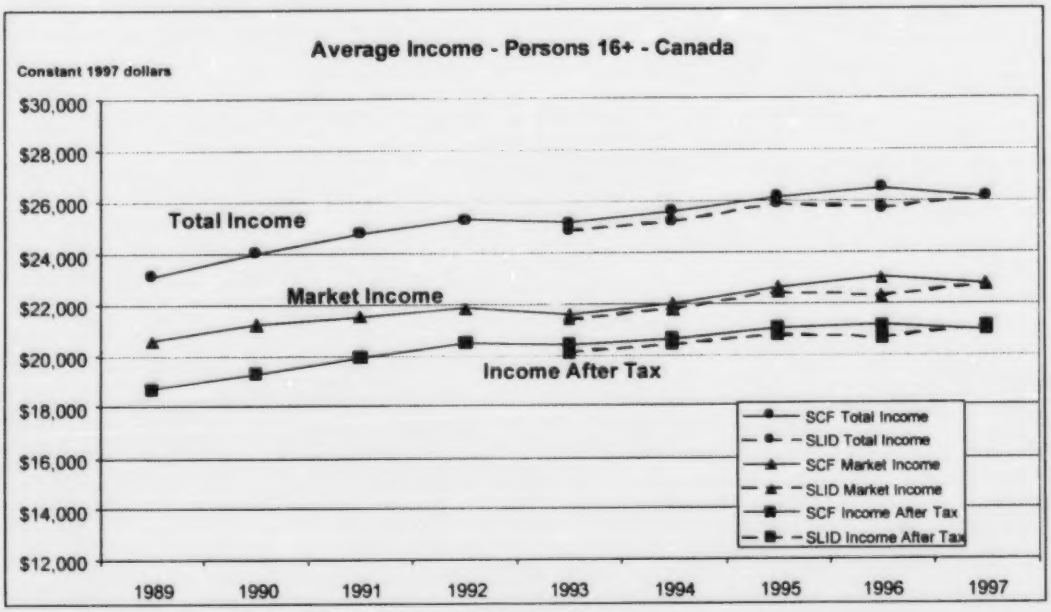
Although small, these differences in the estimated numbers of families and unattached individuals can have an impact on the income results. Statistics Canada is now developing a standard set of independent estimates of households and economic families to be used in the weighting of SLID as well as other household survey data. This will stabilise the estimates and produce consistent family totals across surveys.



3.4 Average Income – Persons 16+ With Income

The average income for persons aged 16 and over in 1997 was the same in SLID and SCF. Market income was also the same in the two surveys. For income after tax, SLID exceeded SCF by $100.

The differences in 1997 were not significant at the 95% level.



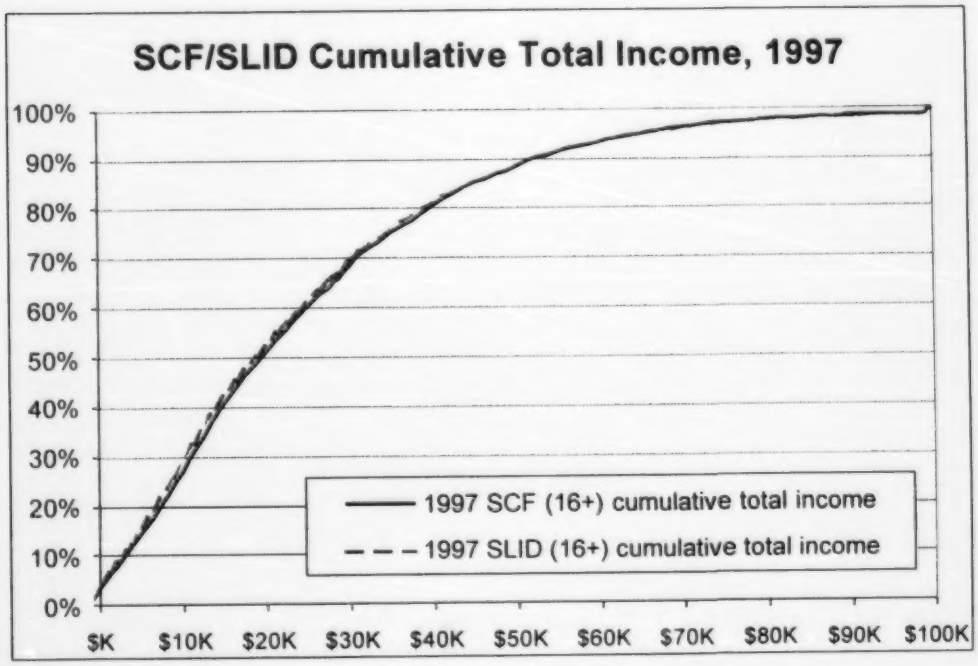
In 1997, SLID reported 96.1% of the population aged 16 and over as receiving income; the SCF proportion was 94.3%. This gap is about the same as in previous years. One of the differences between the two surveys is that SLID asks for permission to use the respondent's tax data. Where permission is received, a link is made to the T-1 files to pick up the respondent's income sources and reported amounts. Where permission is not granted (or if no tax return was filed) the information is collected via telephone interview. In the SCF, all information is based on telephone interviews.

The SLID approach was devised primarily to reduce attrition, non-response and measurement error in the reported income data. Studies have shown that, for the same respondent, the tax file contains more precise responses and a higher frequency of reporting small amounts. On the other hand, both surveys need to impute missing information for non-response and the donor pool for imputation in SLID clearly contains fewer people with no income.

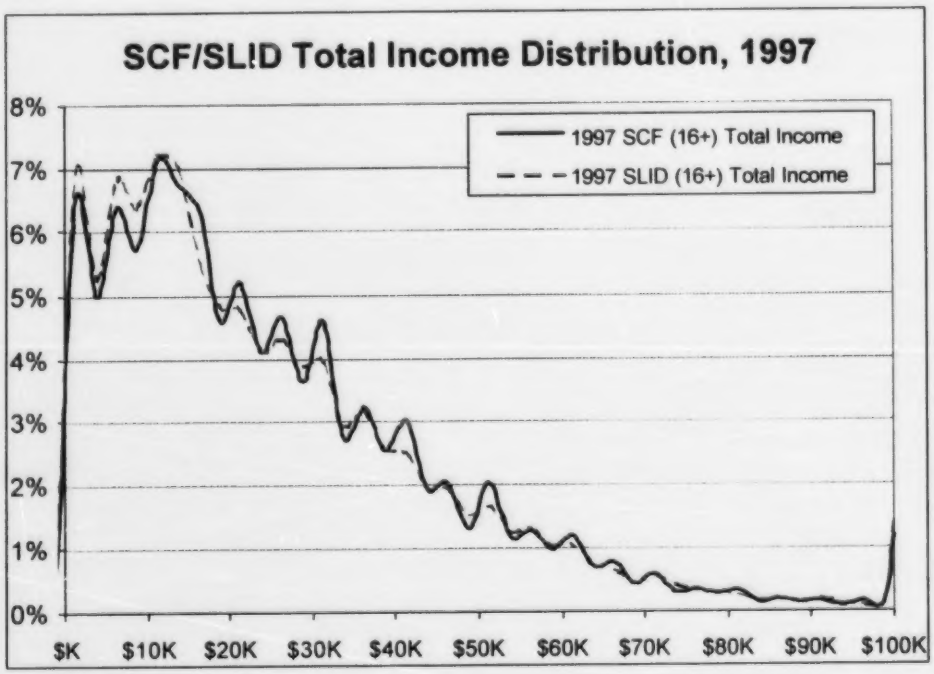
3.5 Distribution of Total Income

The distribution of income according to the two surveys is remarkably similar, as shown by the cumulative frequency distribution for 1997. For total income, the curves lie more or less on top of each other, except at the bottom end. In 1997, SLID had 1.9% more of the population (based on persons 16+ with income) below the $10,000 mark than did SCF. The pattern is similar in earlier years.

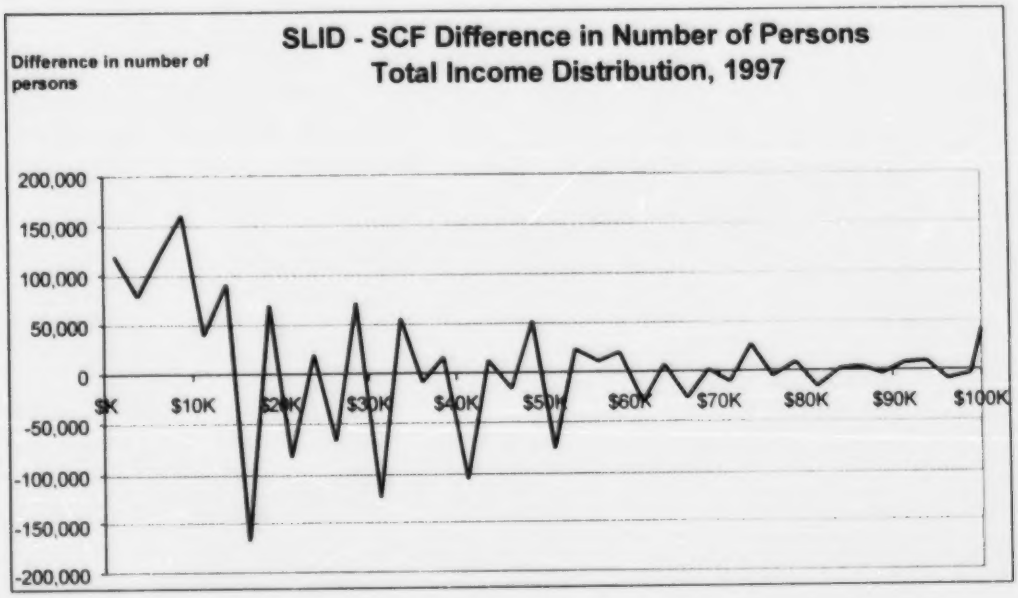
This difference between the two sources is linked to the fact that SLID identifies more individuals with income than SCF. In a nutshell, SLID shows more people with low income levels; SCF shows more with no income.



Although the general shape of the two distributions is very similar, a frequency distribution plotted in intervals of $2,500 shows that the SLID line is smoother. The SCF results, which are based entirely on interviews, show the degree to which respondents round the amounts they report. Much of this income "heaping" is avoided in SLID because of the use of tax data.



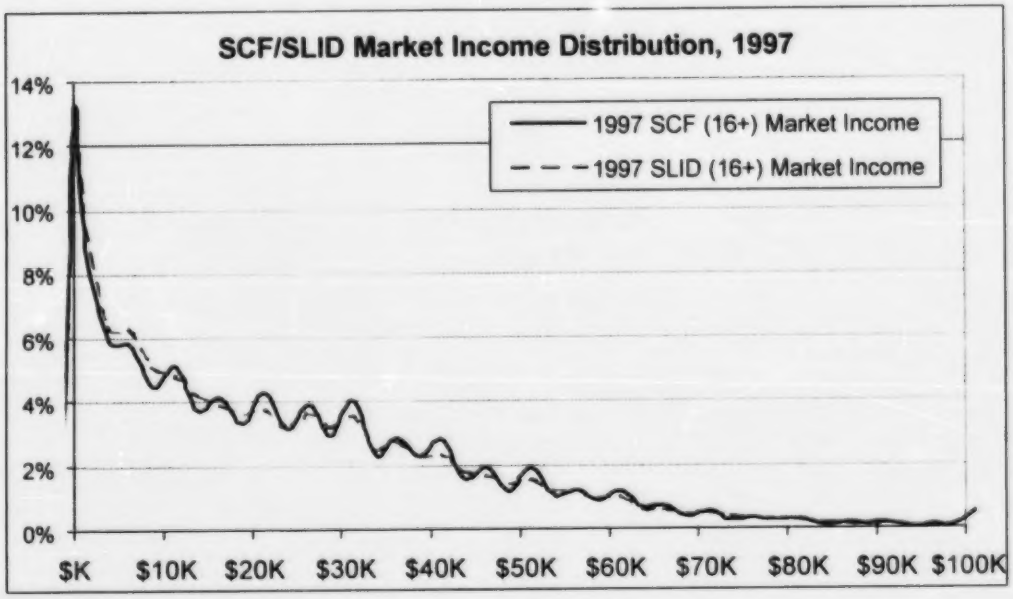
A separate chart plotting the differences between the two surveys (in numbers of persons) is also included. It shows a difference of over 150,000 in the number of persons with an income less than $2,500. Thereafter, the main differences between the two distributions are associated with rounding. Although 150,000 is a large number, the aggregate income they account for is relatively small: $1.3 billion (0.2% of aggregate income).



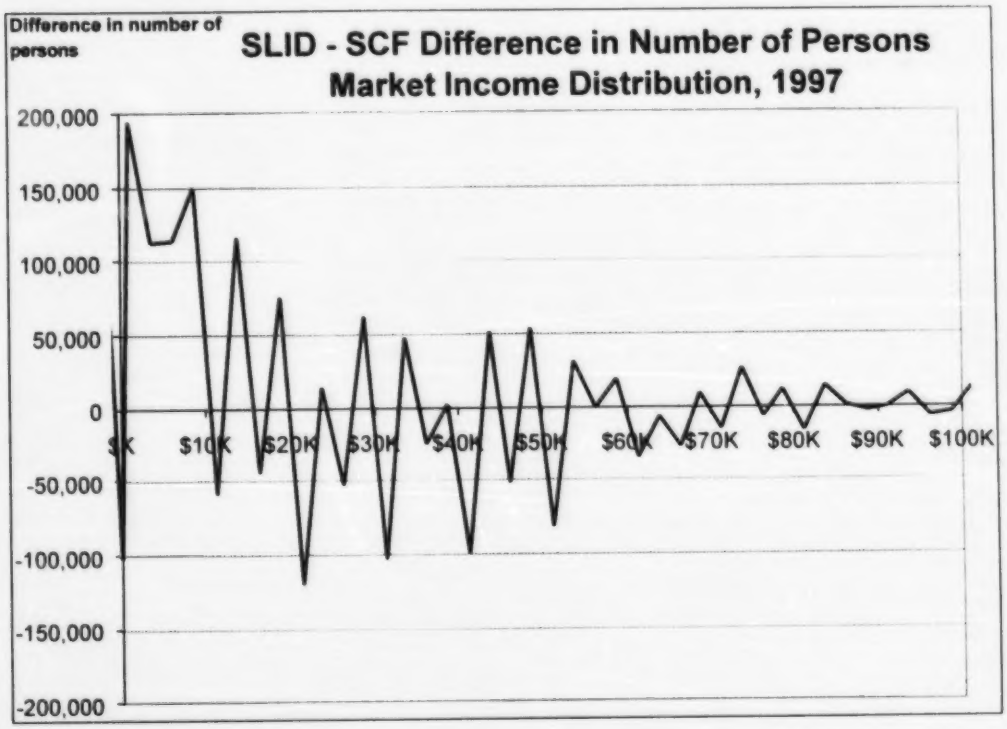
Total Income	SLID Total Income Persons 16+		SCF Total Income Persons 16+		SLID - SCF	
	('000)	%	('000)	%	('000)	% pts
Less than $0	65.7	0.3	37.4	0.2	28.3	0.1
$1 to $2,499	1,557.2	6.9	1,436.7	6.5	120.5	0.4
$2,500 to $4,999	1,185.3	5.3	1,107.0	5.0	78.3	0.3
$5,000 or more	19,731.3	87.5	19,615.6	88.4	115.7	-0.8
	(excluded from the distribution)					
$0	920.5		1,336.8		-416.3	

3.6 Distribution of Market Income

The two surveys yield very similar distributions of market income. Again, the main differences – more visible in the chart that plots the differences – are associated with income reporting at the bottom end of the distribution and rounding. The differences in the reporting of market income, which are at the root of the differences in total income, are again due to the fact that SLID uses tax data and SCF does not.



A chart plotting differences shows that SLID has about 150,000 more persons who have a market income less than $2,500 (and who have a total income not equal to zero). The table divides this group into three: those with less than $0 market income, those with $0 market income and those with market income from $1 to $2,499. SCF has more people in the group with market income equal to zero, while SLID has more people in the other two groups.



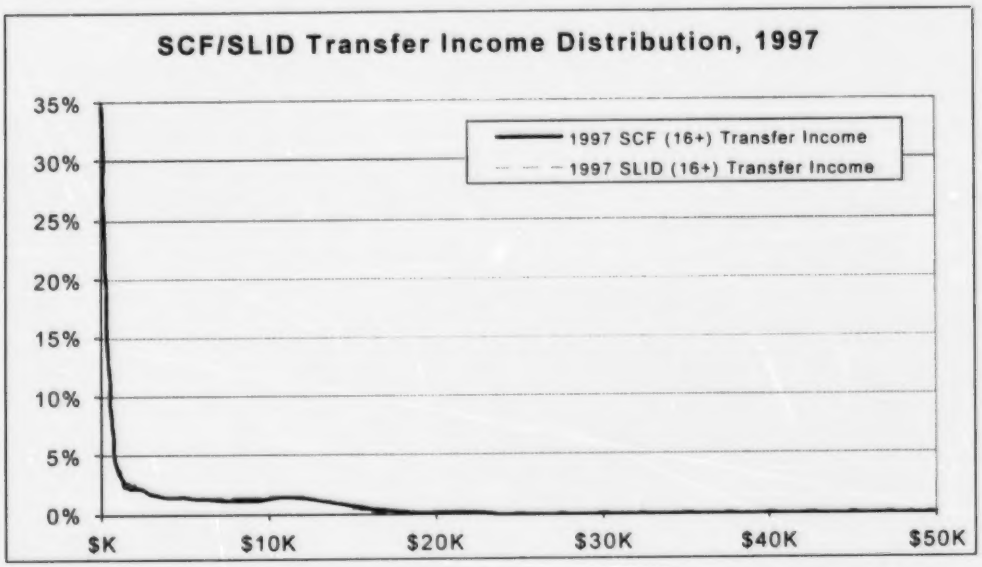
Market Income	Total Income	SLID Market Income Persons 16+		SCF Market Income Persons 16+		SLID - SCF	
		('000)	%	('000)	%	('000)	% pts
Less than $0	**Not $0**	124.6	0.6	59.5	0.3	65.0	0.3
$0	**Not $0**	2,781.2	12.3	2,883.0	13.0	-101.8	-0.7
$1 to $2,499	**Not $0**	2,145.0	9.5	1,951.2	8.8	193.8	0.7
$2,500 to $4,999	**Not $0**	1,429.0	6.3	1,316.3	5.9	112.7	0.4
$5,000 or more	**Not $0**	16,060.0	71.3	15,986.7	72.0	73.1	-0.8
	(excluded from the distribution)						
$0	**$0**	920.5		1,336.8		-416.3	

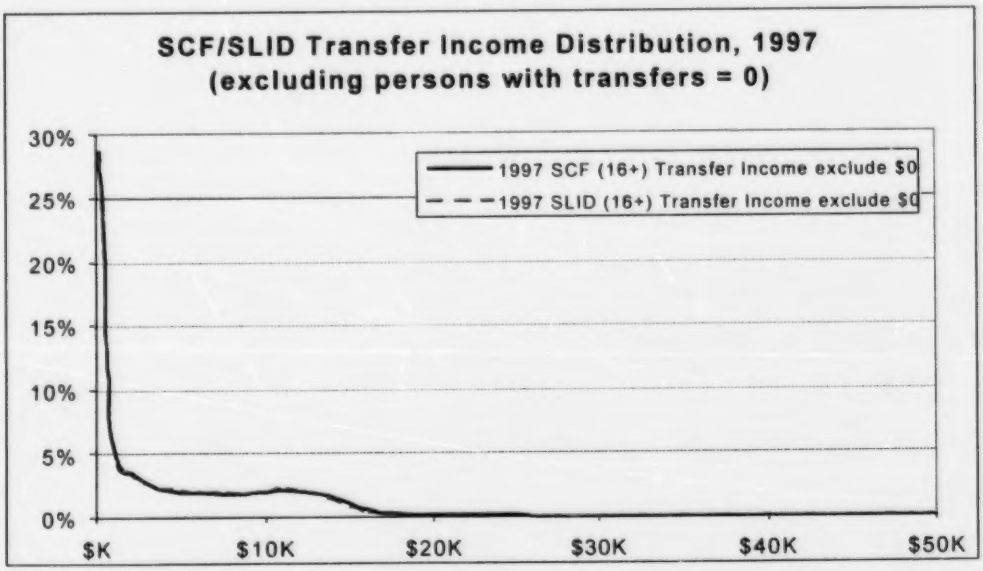
3.7 Distribution of Transfer Income

The distribution of transfer income is presented three ways in the following charts:

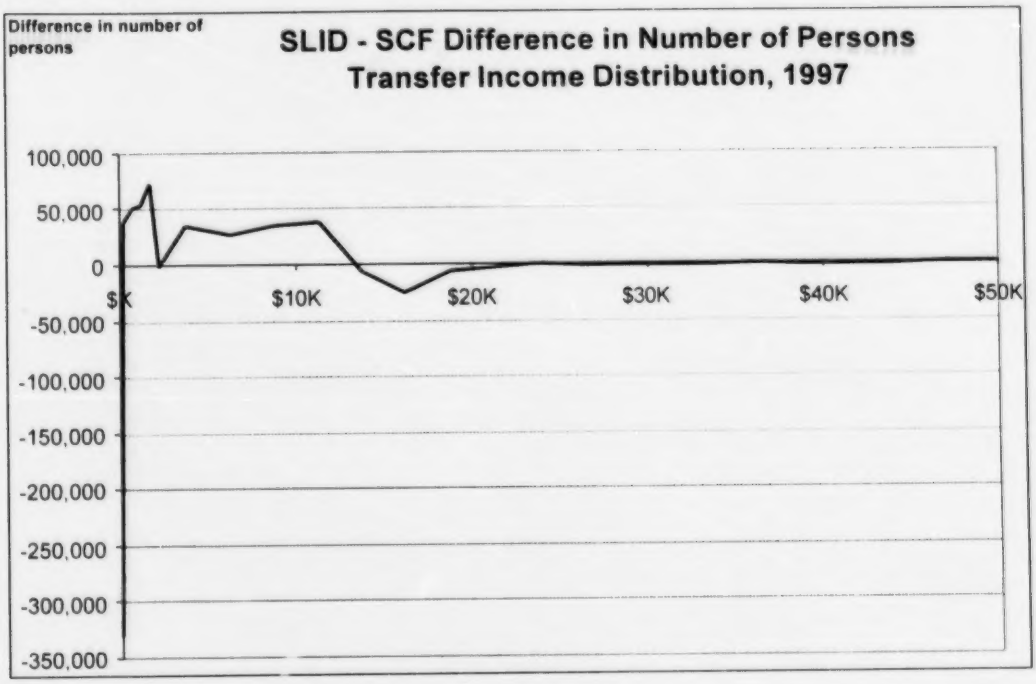
- the percentage distribution for persons receiving transfer income;
- the percentage distribution for all persons aged 16 and over, excluding those who have zero income;
- the difference between the two surveys, in estimates of persons, including those with no transfer income.

The first two charts show that the distributions are virtually identical and it is difficult to visually detect differences.





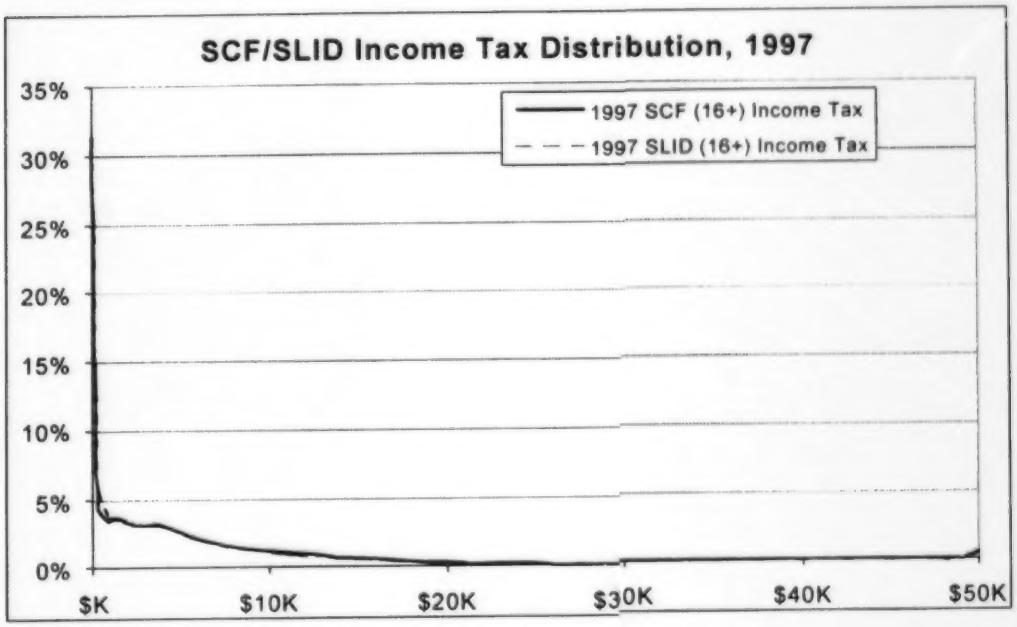
The third chart and the accompanying table show that SLID has a lower estimate of persons receiving no transfer income. The difference is about 325,000. Thereafter, SLID produces larger estimates of the number of people receiving relatively small amounts of transfer income. The differences more or less cease around the $17,500 mark.

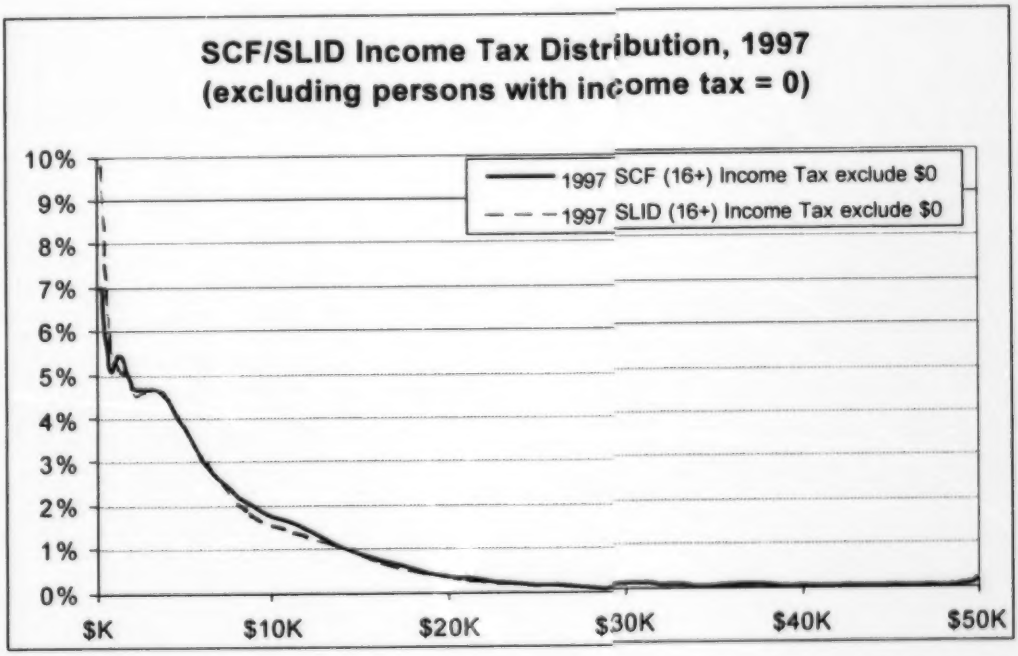


Transfer Income	Total Income	SLID Transfer Income Persons 16+		SCF Transfer Income Persons 16+		SLID - SCF	
		('000)	%	('000)	%	('000)	% pts
$0	**Not $0**	7,354.1	32.6	7,666.4	34.6	-322.3	-2.0
$1 to $499	**Not $0**	4,207.0	18.7	4,168.9	18.8	38.1	-0.1
$500 to $999	**Not $0**	1,193.5	5.3	1,142.9	5.2	50.5	0.2
$1,000 or more	**Not $0**	9,785.0	43.4	9,198.5	41.4	586.5	2.0
		(excluded from the distribution)					
$0	**$0**	920.5		1,336.8		-416.3	

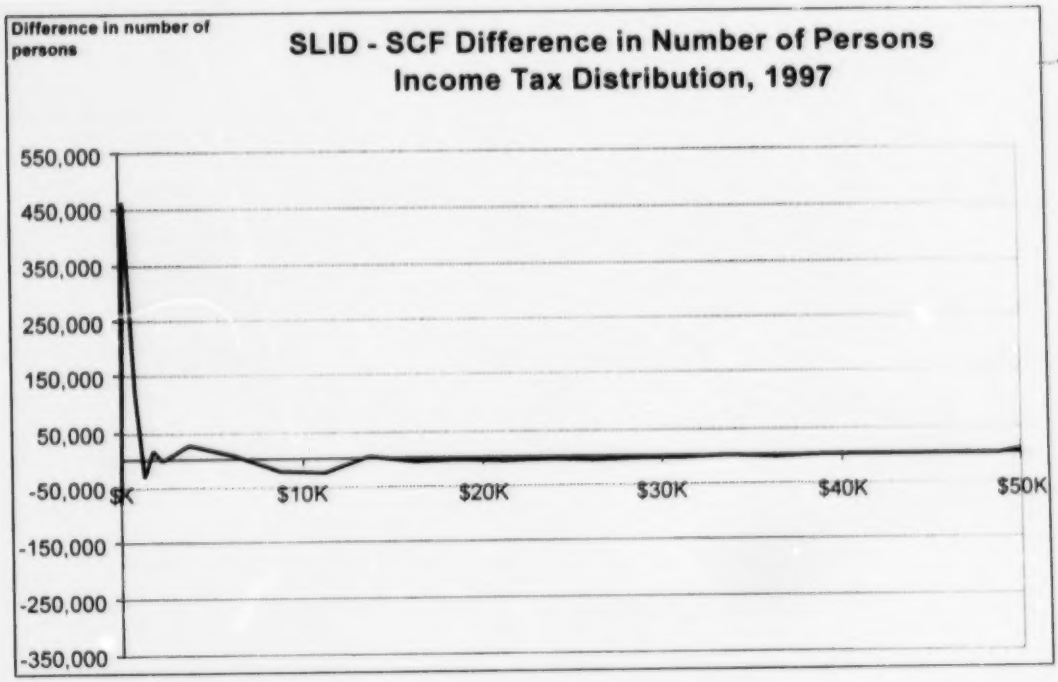
3.8 Distribution of Income Tax

As for the other major variables, the shape of the distribution of income taxes paid is very similar in SLID and SCF. The second chart in the series excludes individuals 16 and over paying no income tax, showing a higher proportion of individuals in SLID at very low levels of taxation.





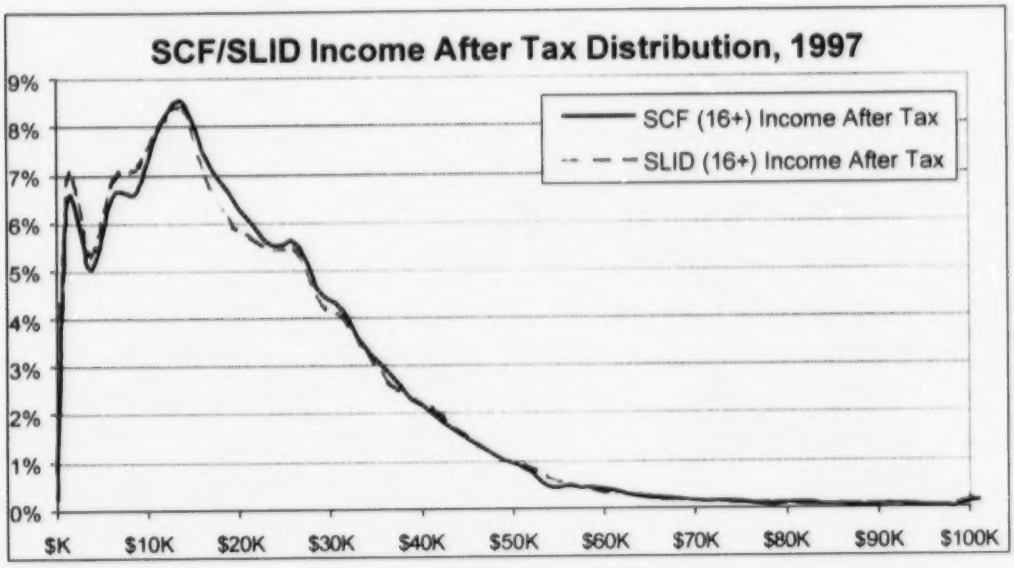
The third chart and the accompanying table highlight the differences between the two surveys, showing that the SCF estimate of persons with zero income tax is about 80,000 higher than SLID and the SLID estimate of persons with $1 to $999 in income tax is about 575,000 higher than SCF.



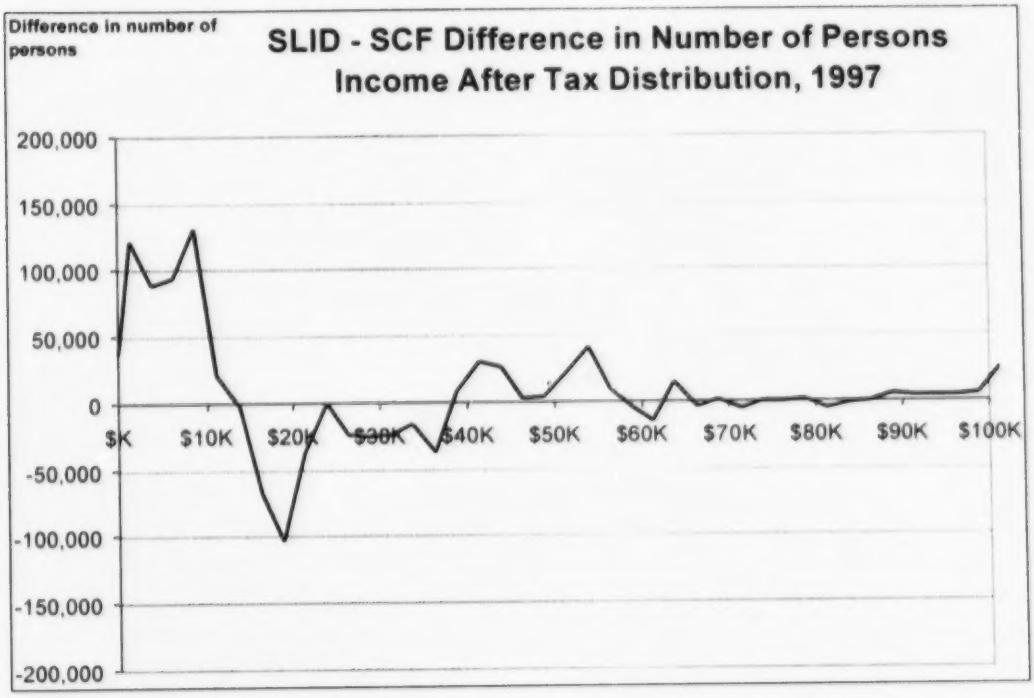
Income Tax	Total Income	SLID Income Tax Persons 16+		SCF Income Tax Persons 16+		SLID - SCF	
		('000)	%	('000)	%	('000)	% pts
$0	**Not $0**	6,887.0	30.6	6,966.2	31.4	-79.2	-0.8
$1 to $499	**Not $0**	1,531.2	6.8	1,070.1	4.8	461.1	2.0
$500 to $999	**Not $0**	900.0	4.0	777.4	3.5	122.6	0.5
$1,000 or more	**Not $0**	13,221.4	58.7	13,383.1	60.3	-161.7	-1.6
		(excluded from the distribution)					
$0	**$0**	920.5		1,336.8		-416.3	

3.9 Distribution of Income After Tax

The differences between SLID and SCF reviewed in the preceding series of charts generally net out, to produce virtually identical distributions of income after tax. The only difference worthy of comment is that SLID has a higher estimate of the number of individuals with income levels below $5,000, which is due mainly to differences in the reporting of market income.



The graph of differences shows-SLID with about 150,000 persons who have less than $2,500 income after tax (and who have a total income that is not equal to zero).



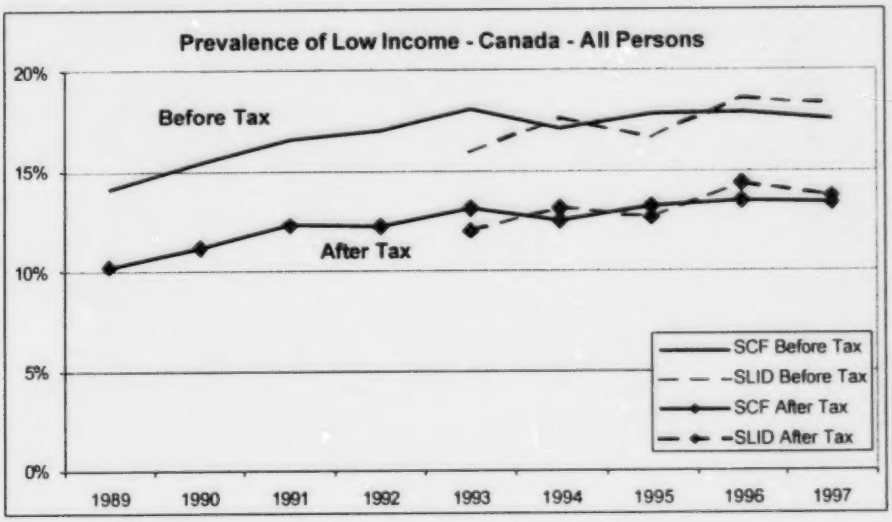
Income After Tax	Total Income	SLID Income After Tax Persons 16+		SCF Income After Tax Persons 16+		SLID - SCF	
		('000)	%	('000)	%	('000)	% pts
Less than $0	Not $0	85.8	0.4	48.6	0.2	37.2	0.2
$0	Not $0	0.0	0.0	0.0	0.0	0.0	0.0
$1 to $2,499	Not $0	1,559.5	6.9	1,437.4	6.5	122.0	0.4
$2,500 to $4,999	Not $0	1,201.8	5.3	1,113.8	5.0	88.0	0.3
$5,000 or more	Not $0	19,692.5	87.4	19,596.9	88.3	95.6	-0.9
		(excluded from the distribution)					
$0	$0	920.5		1,336.8		-416.3	

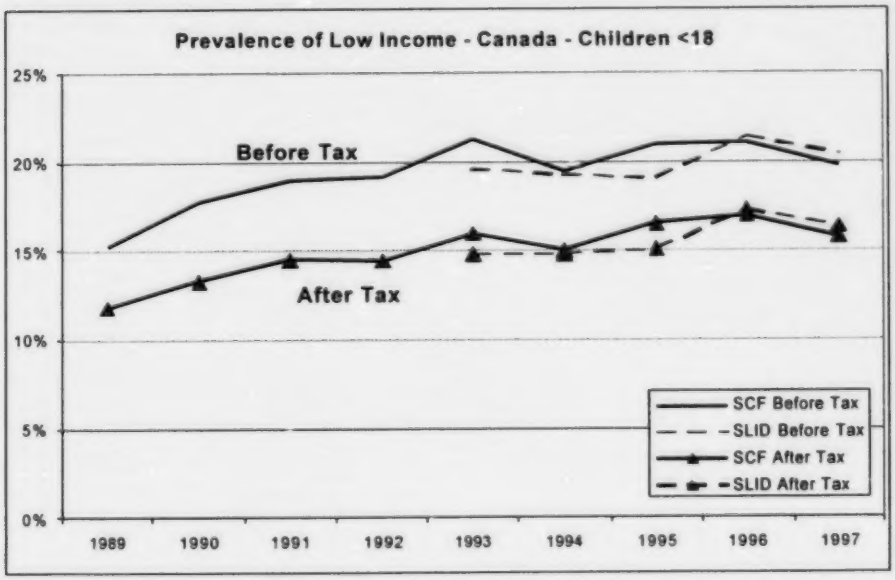
3.10 Prevalence of Low Income

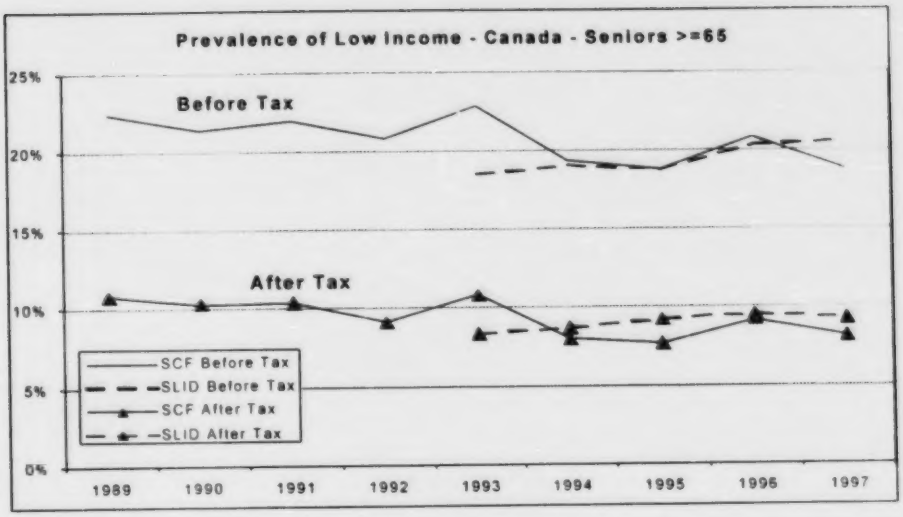
In 1997, the proportion of the population in low income, based on before-tax income, was 17.5% in SCF and 18.2% in SLID. After tax, rates were 13.3% and 13.7% respectively. These differences are not significant at the 95% level. Over the past three years, the rates from the two surveys have fluctuated within a very narrow band. The after-tax rates – which will be highlighted in our future releases – have been less than one percentage point apart since 1994.

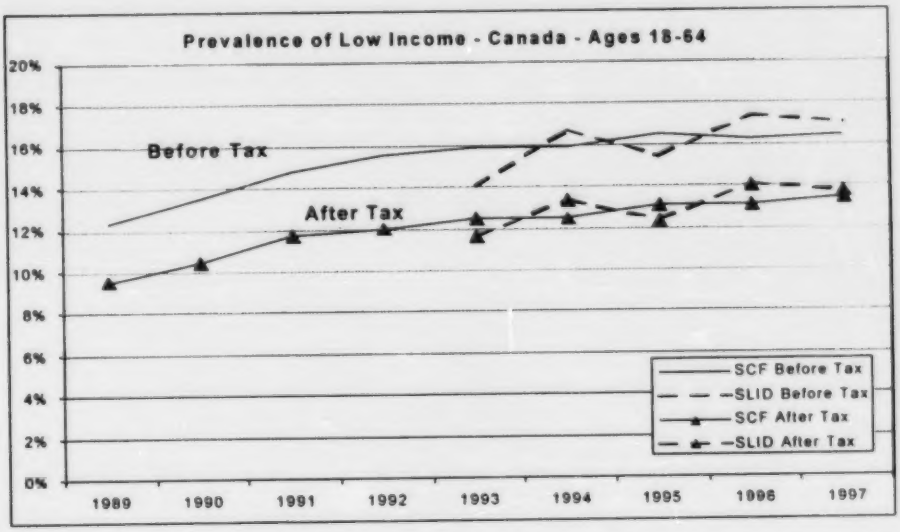
SLID's low income rate for children is very marginally higher than SCF's; the 1997 rates after tax were 16.3% and 15.8% respectively.

The after-tax rate for seniors was 9.2% in SLID and 8.1% in SCF.









Apart from sampling variability and systematic differences in income measurement, SLID and SCF may produce different low income rates because they do not line up with respect to two key variables underlying the derivation of LICOs, specifically family size and community size (also called size of area of residence).

Estimates of families were discussed earlier. The other underlying variable is community size. SLID and SCF are somewhat different with respect to the distribution of the population by community size. Essentially, the SLID population is more concentrated in urban areas under 30,000 and in those between 30,000 and 100,000, while the SCF population is more concentrated in rural areas. Since both surveys are offshoots of the Labour Force Survey, this is not a sample design issue. It is rather due to differences in the way SLID and SCF derive the community size variable. This issue is currently under review.

3.11 Aggregate and Average Income by Source

In 1997, there was a gap of $8.7 billion or 1.5% between the SLID and SCF estimates of aggregate income.

The difference between the two estimates is not significant at the 95% level.

For many of the major income sources, the 1997 SLID estimate was in slightly higher than SCF's. Some exceptions were: earnings (-0.5%), CTB (-8.2%), OAS/GIS (-0.5%), CPP/QPP (-4.0%) and GST credits (-1.8%).

The largest relative differences between the two surveys were recorded for:

- Employment Insurance, where the SLID estimate of aggregate income exceeds the SCF estimate by 21.6%;
- Social Assistance, where SLID values are higher by 17.0%;
- Workers' Compensation, where SLID is 23.7% higher;
- other income, where SLID is 33.6% higher.

The estimates of average income by source are calculated by dividing the aggregate estimate by the number of people receiving the income source in question. As noted earlier, SLID estimates of persons with income are higher than SCF's, and average amounts per person are lower. This phenomenon is evident for virtually every major source of income.

Aggregate Income, Selected Sources, 1997 and 1996 ($billions)

	SLID $billions	SCF $billions	Difference (SLID - SCF)	
			$	%
1997				
Total	589.5	580.7	8.7	1.5
Earnings	447.3	449.4	-2.1	-0.5
Wages and salaries	417.4	410.4	7.0	1.7
Investment	20.7	18.9	1.7	8.5
Government transfers	77.2	75.4	1.7	2.3
Child Tax Benefit	5.6	6.1	-0.5	-8.2
OAS/GIS	21.0	21.1	-0.1	-0.5
CPP/QPP	20.0	20.8	-0.8	-4.0
EI	11.9	9.3	2.6	21.6
Social Assistance	11.1	9.2	1.9	17.0
Workers' Comp.	4.0	3.0	0.9	23.7
GST Credits	2.7	2.8	0.0	-1.8
Pension	32.0	28.9	3.2	9.9
Other Income	12.3	8.1	4.1	33.6
Income tax	117.0	115.7	1.3	1.1
1996				
Total	563.1	567.1	-4.0	-0.7
Earnings	420.0	433.5	-13.5	-3.1
Wages and salaries	393.4	397.6	-4.2	-1.1
Investment	22.5	22.2	0.3	1.4
Government transfers	76.5	75.2	1.2	1.7
Child Tax Benefit	5.7	5.8	-0.1	-2.1
OAS/GIS	20.1	20.5	-0.4	-2.0
CPP/QPP	19.2	19.3	-0.2	-0.9
EI	12.7	11.2	1.5	13.6
Social Assistance	11.6	9.9	1.7	16.7
Workers' Comp.	3.5	3.3	0.2	7.3
GST Credits	2.8	2.8	–	–
Pension	29.5	26.7	2.7	10.2
Other income	14.6	9.4	5.3	56.1
Income tax	111.2	114.3	-3.1	-2.7

Average Income for Selected Sources, 1997 and 1996

	SLID $	SCF $	Difference (SLID - SCF)	
			$	%
1997				
Total	26,200	26,200	0	0.0
Earnings	27,300	27,800	-500	-1.9
Wages and salaries	27,700	28,000	-300	-0.9
Investment	2,700	3,500	-800	-31.0
Government transfers	5,100	5,200	-100	-2.3
Child Tax Benefit	1,600	1,900	-200	-14.4
OAS/GIS	5,900	5,900	0	-0.5
CPP/QPP	5,100	5,400	-300	-5.6
EI	4,400	4,700	-300	-7.4
Social Assistance	5,500	5,900	-400	-6.8
Workers' Comp.	5,400	7,100	-1,700	-31.9
GST Credits	300	300	0	4.0
Pension	12,900	12,800	100	0.7
Income tax	7,500	7,600	-100	-1.7
1996				
Total	25,300	26,100	-700	-2.9
Earnings	26,400	27,300	-900	-3.3
Wages and salaries	27,000	27,600	-600	-2.1
Investment	2,800	3,600	-800	-21.8
Government transfers	5,000	5,100	-100	-2.1
Child Tax Benefit	1,600	1,800	-300	-14.6
OAS/GIS	5,800	5,900	-100	-1.3
CPP/QPP	5,000	5,200	-200	-3.8
EI	4,500	4,900	-500	-9.1
Social Assistance	5,700	5,700	–	-0.1
Workers' Comp.	4,800	7,800	-3,000	-38.1
GST Credits	300	300	–	1.0
Pension	12,500	12,600	–	-0.3
Income tax	7,300	7,500	-300	-3.3

3.12 Aggregate Income by Source – Comparison to RCT and SNA ($billions)

With some adjustments, it is possible to compare the results from SLID and SCF to those of other sources, specifically National Accounts and Revenue Canada. Both are useful points of comparison. Revenue Canada should line up very well with the surveys, because the tax system now covers about 95% of the population. For the majority of income sources, the surveys make reference to tax form line numbers in the hope that survey respondents will report precisely the amounts indicated on their T-1. However, some items are known to be under-reported in the income tax data, and the National Accounts make use of other sources which are more complete.

For the comparison of total aggregate income, the survey results are adjusted to National Accounts concepts. In other words:

- income from private pensions is excluded;
- "other income" is excluded.

The National Accounts results in the comparison are not final estimates. The Revenue Canada results were obtained from Small Area and Administrative Data Division (SAADD) and are based on the full T-1 file rather than on the Green Book. The SAADD data provide a better basis for comparison as they are based on the full taxfiler universe, rather than a sample. Also, some editing is done by SAADD. Some adjustments have been made to both SNA and tax data to correspond to the population covered by the surveys. However, differences in conceptual coverage and definition remain.

In 1997, the aggregate income from SLID adjusted to National Accounts concepts was $545.1 billion; based on SCF, the estimate was $543.7 billion. These results are less than 1% higher than the National Accounts estimate. However, the surveys were about 5% higher than the corresponding estimate from Revenue Canada.

Aggregate Income, Selected Sources, 1997 and 1996: Comparisons With National Accounts and Revenue Canada

$billions

	SLID	SCF	SNA	RCT
1997				
Total*	545.1	543.7	540.8	518.5
Earnings	447.3	449.4	421.8	416.0
Wages and salaries	417.4	410.4	385.3	384.2
Investment	20.7	18.9	38.3	26.8
Government transfers	77.2	75.4	80.7	75.7
Income tax	117.0	115.7	118.4	116.6
1996				
Total*	519.0	530.9	531.1	497.3
Earnings	420.0	433.5	401.6	392.1
Wages and salaries	393.4	397.6	367.7	363.5
Investment	22.5	22.2	40.3	29.3
Government transfers	76.5	75.2	89.2	76.0
Income tax	111.2	114.3	108.6	111.1

* Based on National Accounts concepts

Aggregate Income, Selected Sources, 1997 and 1996: Comparisons With National Accounts and Revenue Canada

Ratios

	SLID/SNA	SCF/SNA	SLID/RCT	SCF/RCT
1997				
Total*	100.8	100.5	105.1	104.9
Earnings	106.0	106.5	107.5	108.0
Wages and salaries	108.3	106.5	108.6	106.8
Investment	54.0	49.4	72.2	70.6
Government transfers	95.6	93.4	102.0	99.7
Income tax	98.8	97.7	100.3	99.2
1996				
Total*	97.7	100.0	104.4	106.8
Earnings	104.6	107.9	107.1	110.6
Wages and salaries	107.0	108.1	108.2	109.4
Investment	55.8	55.1	77.0	75.9
Government transfers	85.7	84.3	100.6	99.0
Income tax	102.4	105.2	100.1	102.9

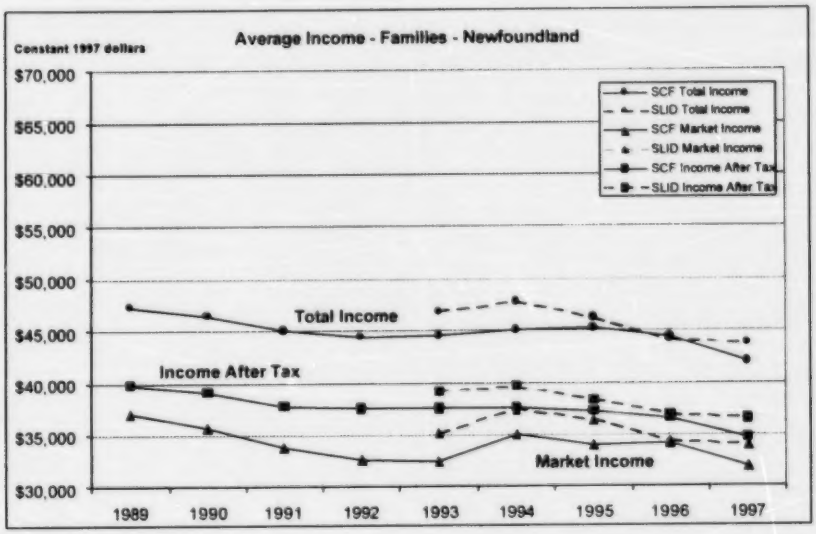
* Based on National Accounts concepts

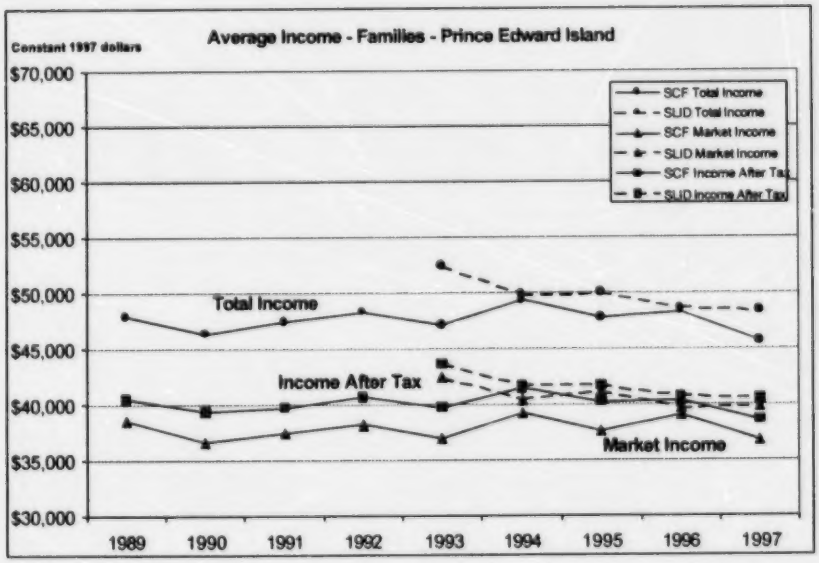
3.13 Average Income – Families – Provinces

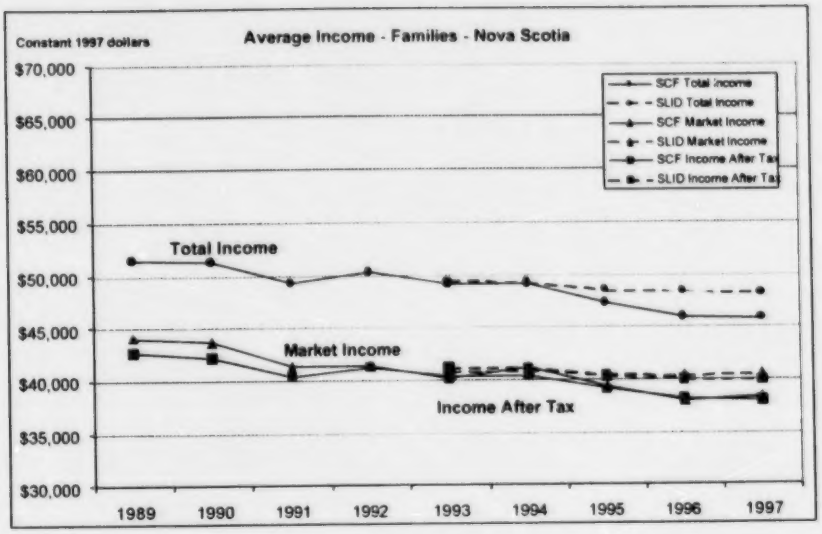
The estimates of average family income by province from SLID are generally quite close to the SCF values. With the introduction of the second panel in SLID, the sample size doubled. This, combined with large sample overlap from year to year, will contribute to stabilization of estimates for small provinces.

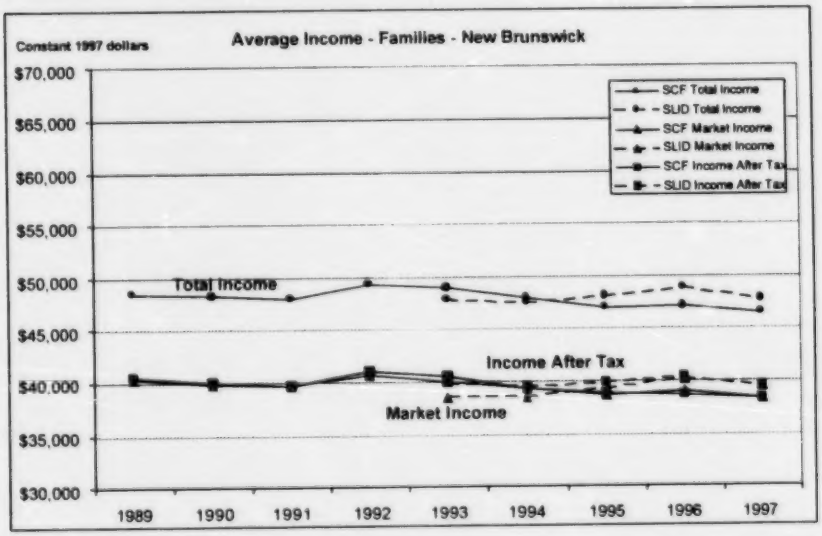
For 1997, most of the SLID and SCF estimates of average family income were within 4% of each other. The exceptions were Prince Edward Island (6%), Nova Scotia (5%) and Alberta (6%).

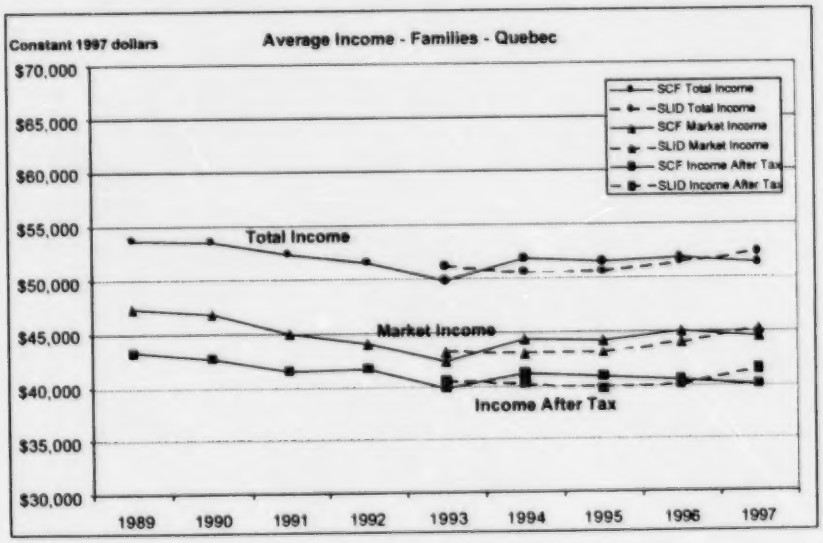
The differences were not significant at the 95% level in any province, except for Alberta.

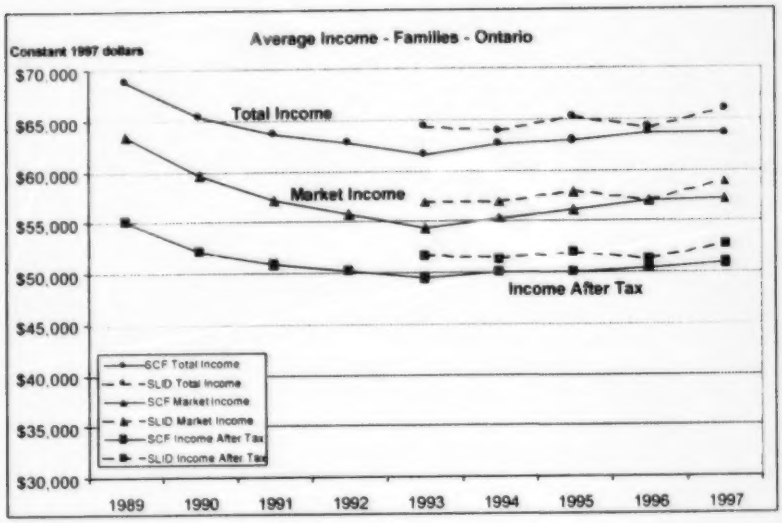


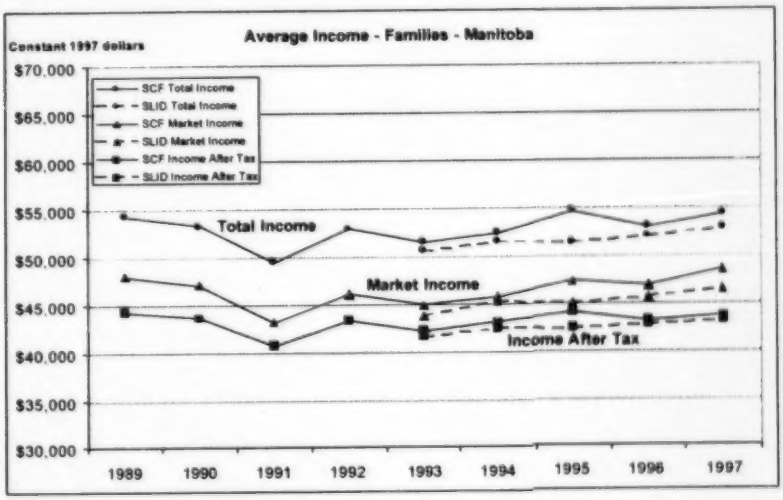


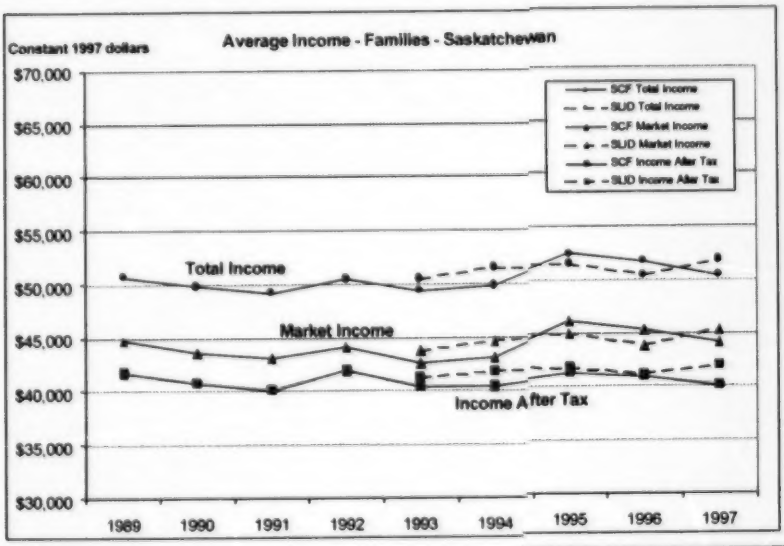

Constant 1997 dollars
Average Income - Families - Nova Scotia
$70,000
$65,000
$60,000
$55,000
$50,000
$45,000
$40,000
$35,000
$30,000
1989
1990
1991
1992
1993
1994
1995
1996
1997
SCF Total Income
SLID Total Income
SCF Market Income
SLID Market Income
SCF Income After Tax
SLID Income After Tax
Total Income
Market Income
Income After Tax

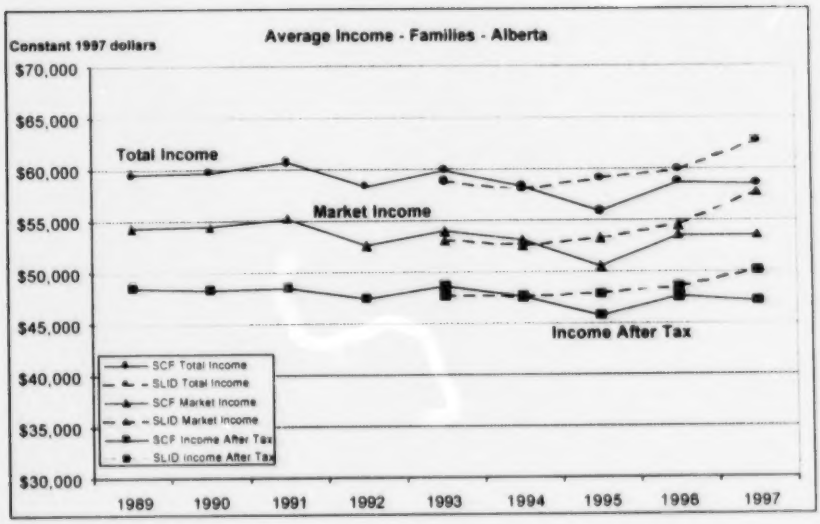

Constant 1997 dollars
Average Income - Families - New Brunswick
$70,000
$65,000
$60,000
$55,000
$50,000
$45,000
$40,000
$35,000
$30,000
1989
1990
1991
1992
1993
1994
1995
1996
1997
SCF Total Income
SLID Total Income
SCF Market Income
SLID Market Income
SCF Income After Tax
SLID Income After Tax
Total Income
Income After Tax
Market Income

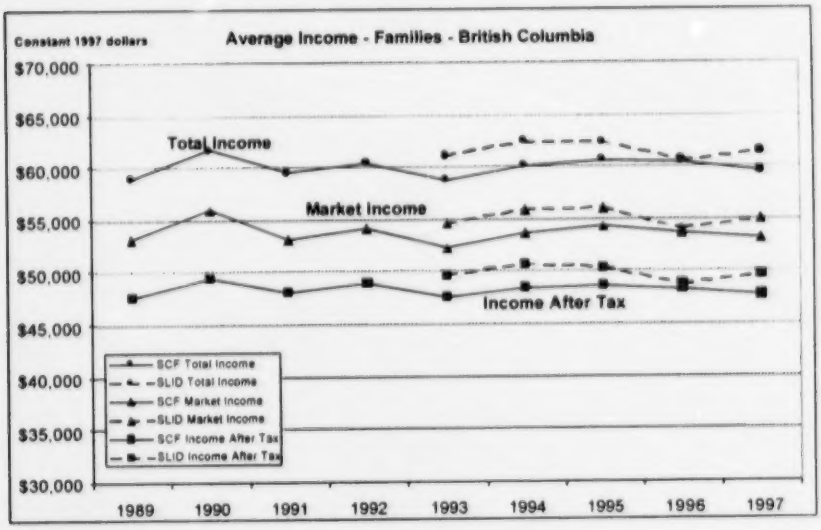

Constant 1997 dollars
Average Income - Families - Quebec
$70,000
$65,000
$60,000
$55,000
$50,000
$45,000
$40,000
$35,000
$30,000
1989
1990
1991
1992
1993
1994
1995
1996
1997
SCF Total Income
SLID Total Income
SCF Market Income
SLID Market Income
SCF Income After Tax
SLID Income After Tax
Total Income
Market Income
Income After Tax


Average Income - Families - Ontario
Constant 1997 dollars
$70,000
$65,000
$60,000
$55,000
$50,000
$45,000
$40,000
$35,000
$30,000
Total Income
Market Income
Income After Tax
SCF Total Income
SLID Total Income
SCF Market Income
SLID Market Income
SCF Income After Tax
SLID Income After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997


Average Income - Families - Manitoba
Constant 1997 dollars
$70,000
$65,000
$60,000
$55,000
$50,000
$45,000
$40,000
$35,000
$30,000
SCF Total Income
SLID Total Income
SCF Market Income
SLID Market Income
SCF Income After Tax
SLID Income After Tax
Total Income
Market Income
Income After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997


Average Income - Families - Saskatchewan
Constant 1997 dollars
$70,000
$65,000
$60,000
$55,000
$50,000
$45,000
$40,000
$35,000
$30,000
SCF Total Income
SLID Total Income
SCF Market Income
SLID Market Income
SCF Income After Tax
SLID Income After Tax
Total Income
Market Income
Income After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997


Constant 1997 dollars
Average Income - Families - Alberta
$70,000
$65,000
$60,000
$55,000
$50,000
$45,000
$40,000
$35,000
$30,000
Total Income
Market Income
Income After Tax
SCF Total Income
SLID Total Income
SCF Market Income
SLID Market Income
SCF Income After Tax
SLID Income After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997

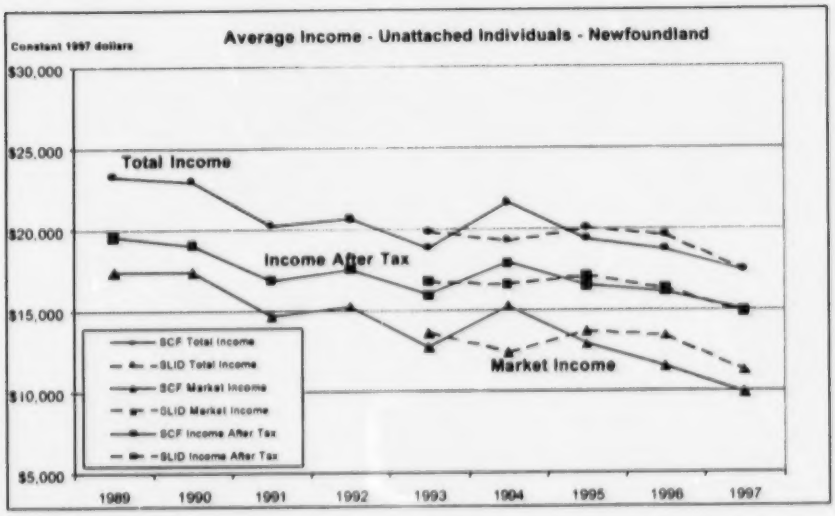

Constant 1997 dollars
Average Income - Families - British Columbia
$70,000
$65,000
$60,000
$55,000
$50,000
$45,000
$40,000
$35,000
$30,000
Total Income
Market Income
Income After Tax
SCF Total Income
SLID Total Income
SCF Market Income
SLID Market Income
SCF Income After Tax
SLID Income After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997

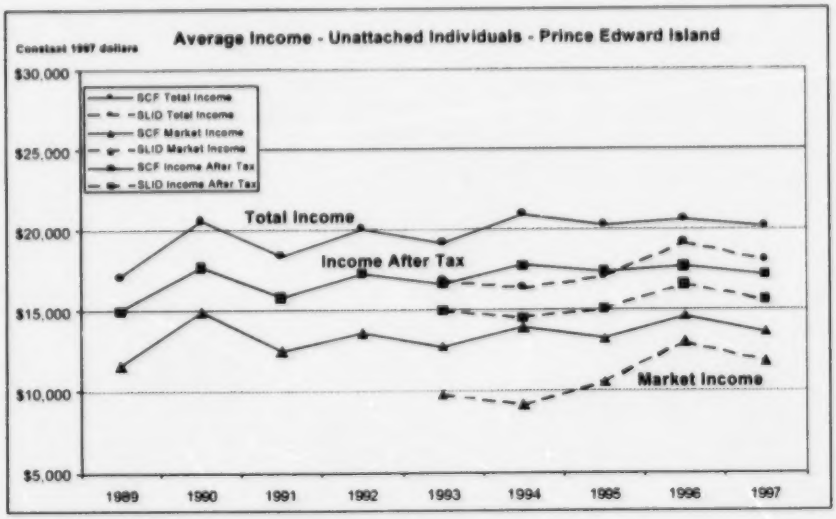
3.14 Average Income – Unattached Individuals – Provinces

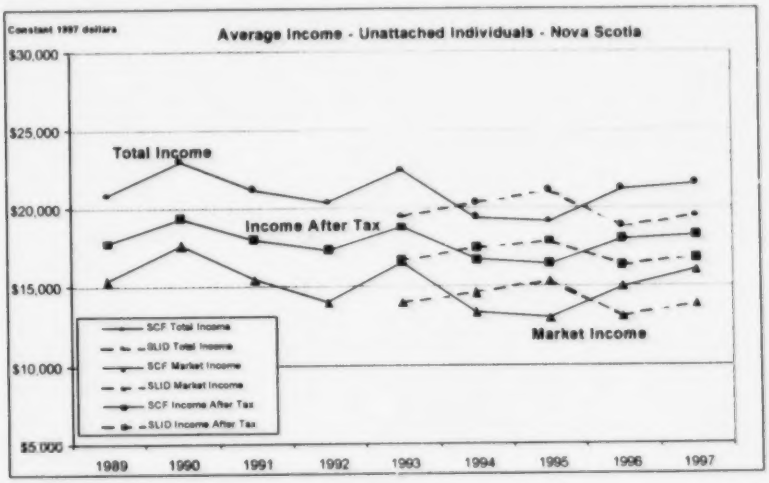
The estimates of average income by province for unattached individuals are generally quite close.

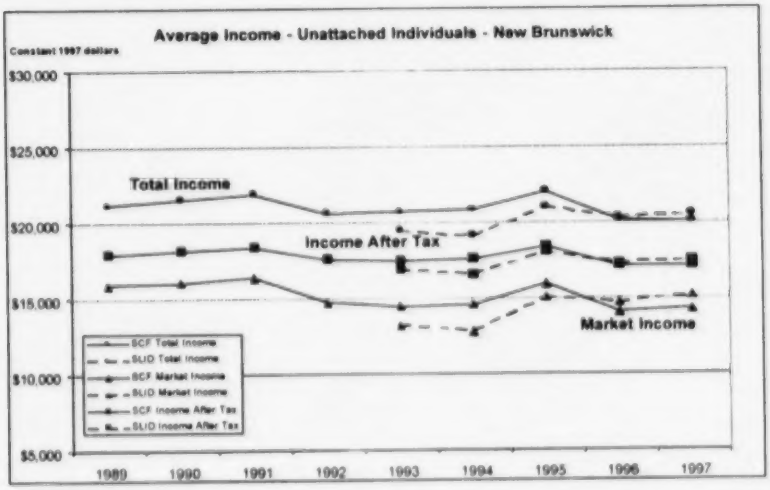
For 1997, most of the SLID and SCF estimates of average income for unattached individuals were within 2% of each other. The exceptions were Prince Edward Island (12%) and Nova Scotia (11%).

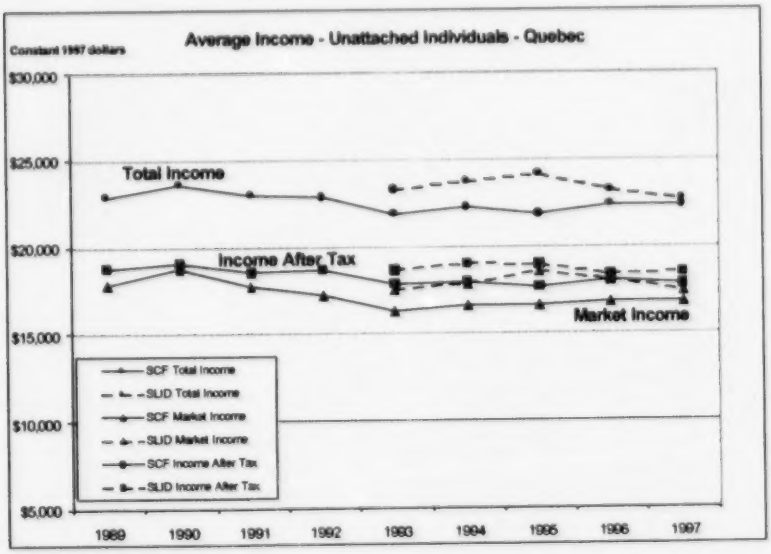
The differences were not significant at the 95% level for any province, except Nova Scotia.

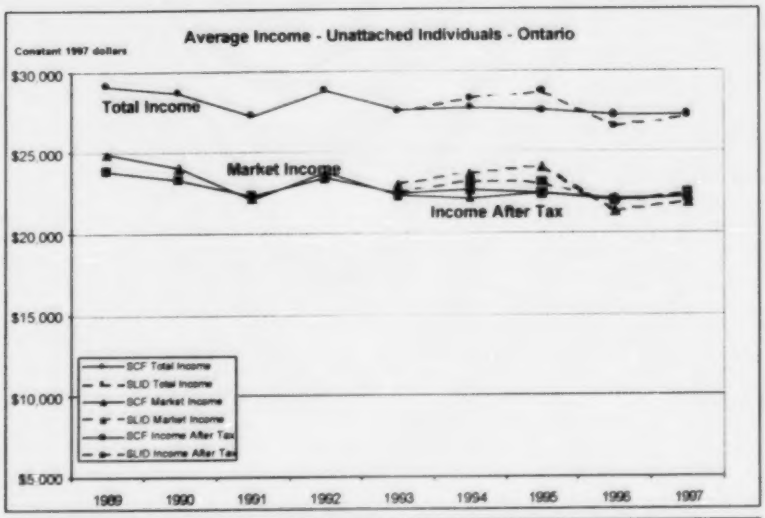


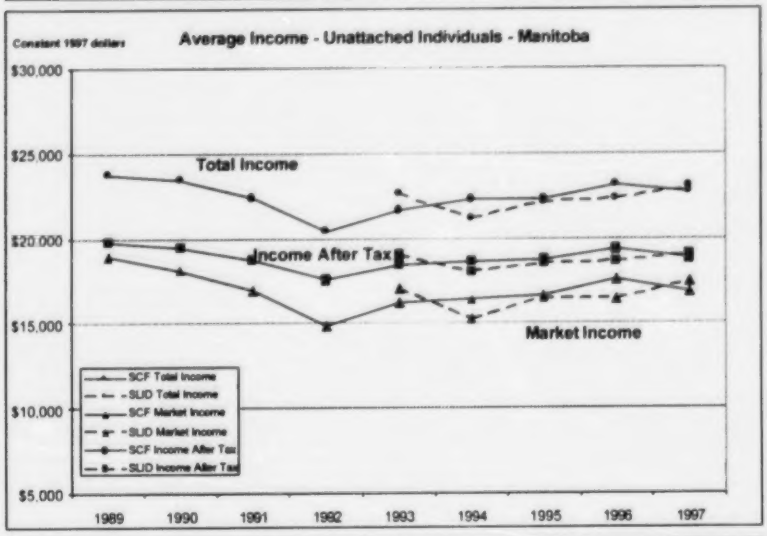


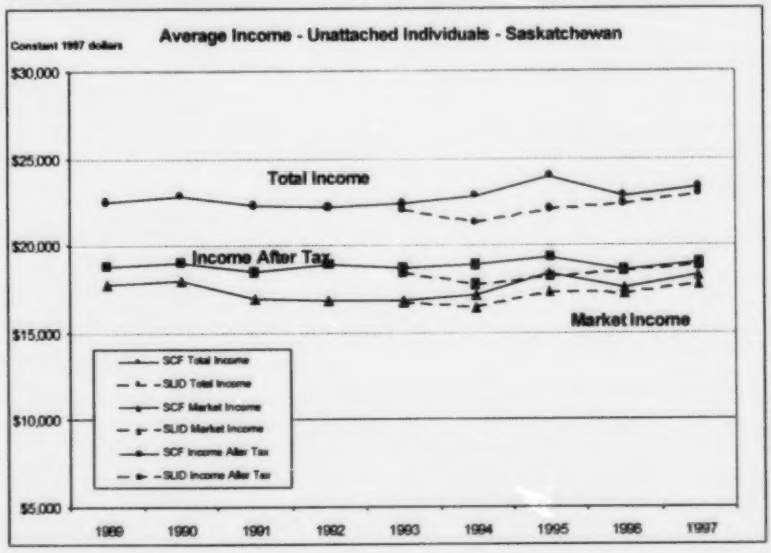

Constant 1997 dollars
Average Income - Unattached Individuals - Nova Scotia
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
Total Income
Income After Tax
Market Income
SCF Total Income
SLID Total Income
SCF Market Income
SLID Market Income
SCF Income After Tax
SLID Income After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997

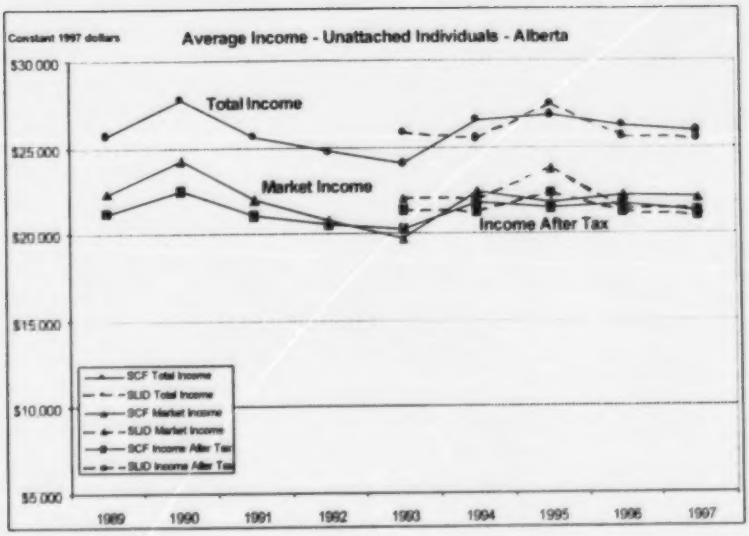

Average Income - Unattached Individuals - New Brunswick
Constant 1997 dollars
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
Total Income
Income After Tax
Market Income
SCF Total Income
SLID Total Income
SCF Market Income
SLID Market Income
SCF Income After Tax
SLID Income After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997

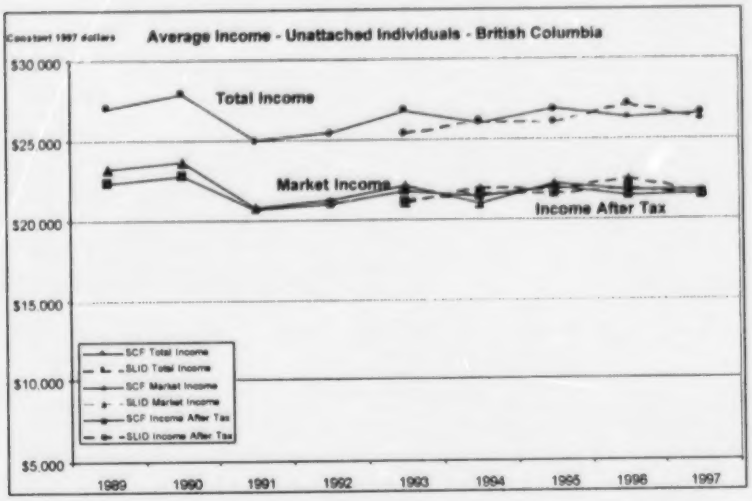

Constant 1997 dollars
Average Income - Unattached Individuals - Quebec
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
Total Income
Income After Tax
Market Income
SCF Total Income
SLID Total Income
SCF Market Income
SLID Market Income
SCF Income After Tax
SLID Income After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997


Average Income - Unattached Individuals - Ontario
Constant 1997 dollars
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
Total Income
Market Income
Income After Tax
SCF Total Income
SUD Total Income
SCF Market Income
SUD Market Income
SCF Income After Tax
SUD Income After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997


Average Income - Unattached Individuals - Manitoba
Constant 1997 dollars
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
Total Income
Income After Tax
Market Income
SCF Total Income
SUD Total Income
SCF Market Income
SUD Market Income
SCF Income After Tax
SUD Income After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997


Average Income - Unattached Individuals - Saskatchewan
Constant 1997 dollars
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
Total Income
Income After Tax
Market Income
SCF Total Income
SUD Total Income
SCF Market Income
SUD Market Income
SCF Income After Tax
SUD Income After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997


Constant 1997 dollars
Average Income - Unattached Individuals - Alberta
$30 000
$25 000
$20 000
$15 000
$10 000
$5 000
Total Income
Market Income
Income After Tax
SCF Total Income
SLID Total Income
SCF Market Income
SLID Market Income
SCF Income After Tax
SLID Income After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997


Constant 1997 dollars
Average Income - Unattached Individuals - British Columbia
$30 000
$25 000
$20 000
$15 000
$10 000
$5 000
Total Income
Market Income
Income After Tax
SCF Total Income
SLID Total Income
SCF Market Income
SLID Market Income
SCF Income After Tax
SLID Income After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997

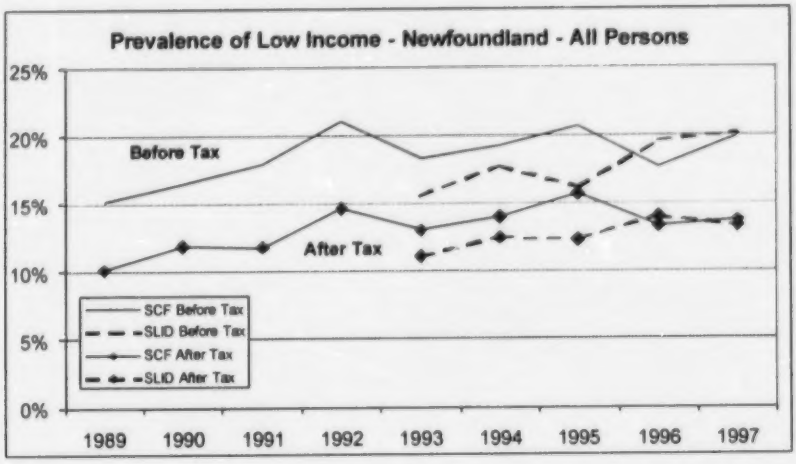
3.15 Prevalence of Low Income – Provinces

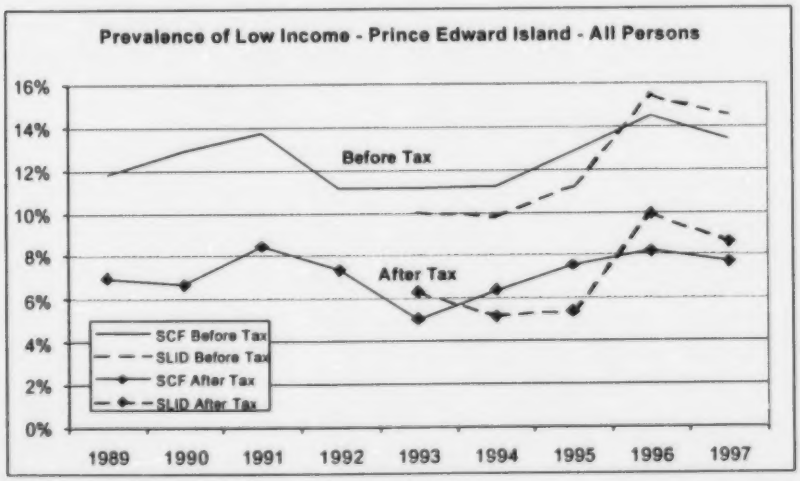
There are no significant differences in the SLID and SCF before tax low income rates at the provincial level, with the exception of Quebec.

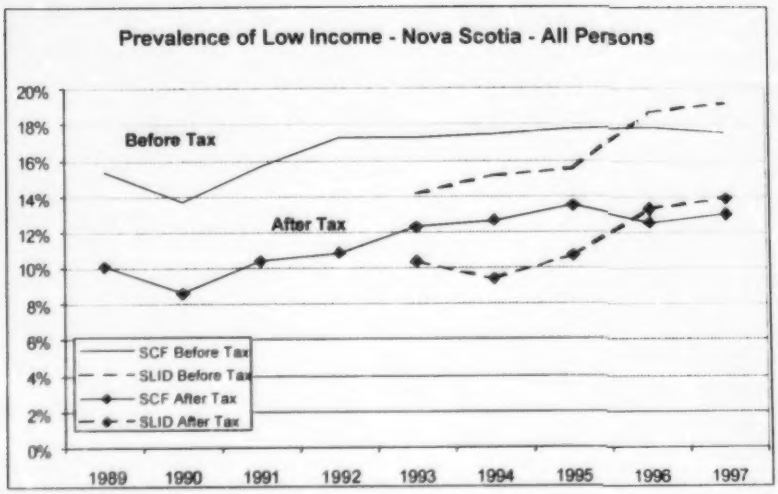
For most provinces, the 1997 low income rates before tax were somewhat higher in SLID than in SCF (New Brunswick and British Columbia were the exceptions). In absolute terms, the largest gaps were recorded for Quebec and Manitoba, where the SLID rates were about 2 p.p. higher. Both surveys show Quebec as having the highest rate and Prince Edward Island with the lowest rate, but there are some differences in ranking between the extremes.

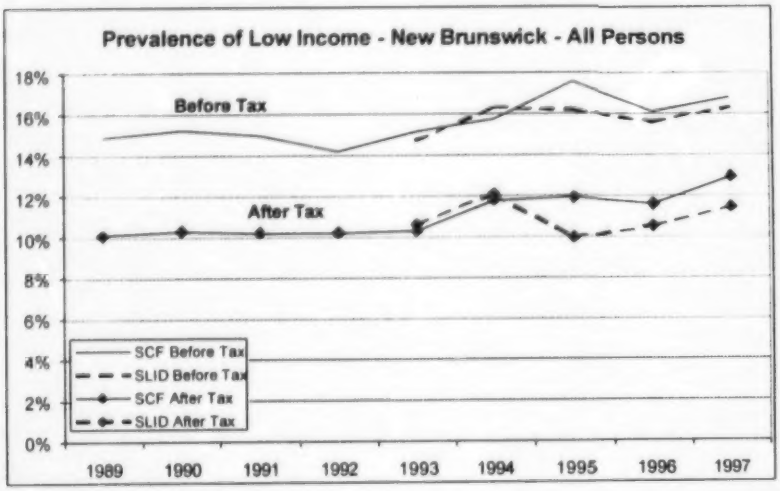
There are no significant differences in the SLID and SCF after tax low income rates at the provincial level, with the exception of Quebec.

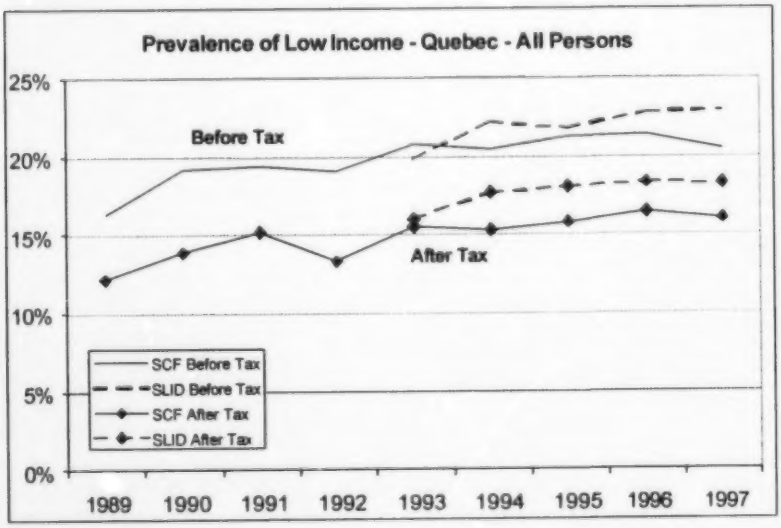
The after-tax low income rates in SLID vary from 8.6% in Prince Edward Island to 18.2% in Quebec. The range in SCF is from 7.7% to 16.0%. Both surveys show Quebec and Manitoba as having the highest rates, with Prince Edward Island, Saskatchewan and Ontario as having the lowest rates. There are some small differences in the ranking of the other five provinces.

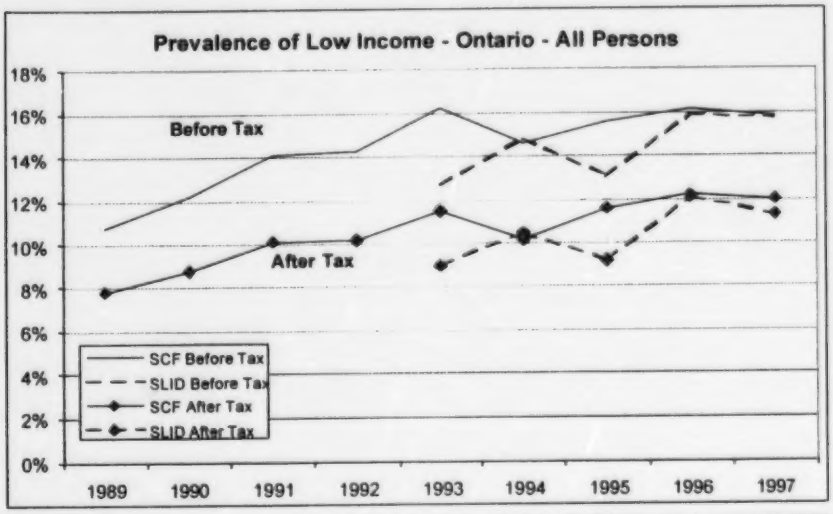


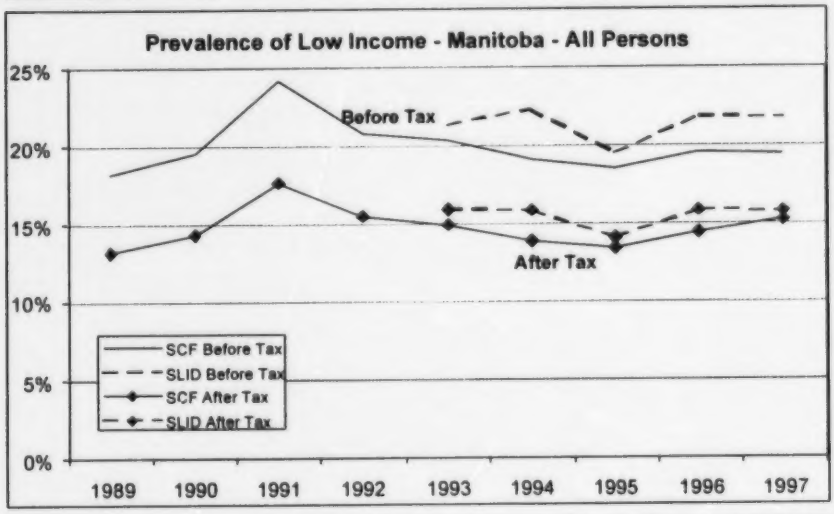


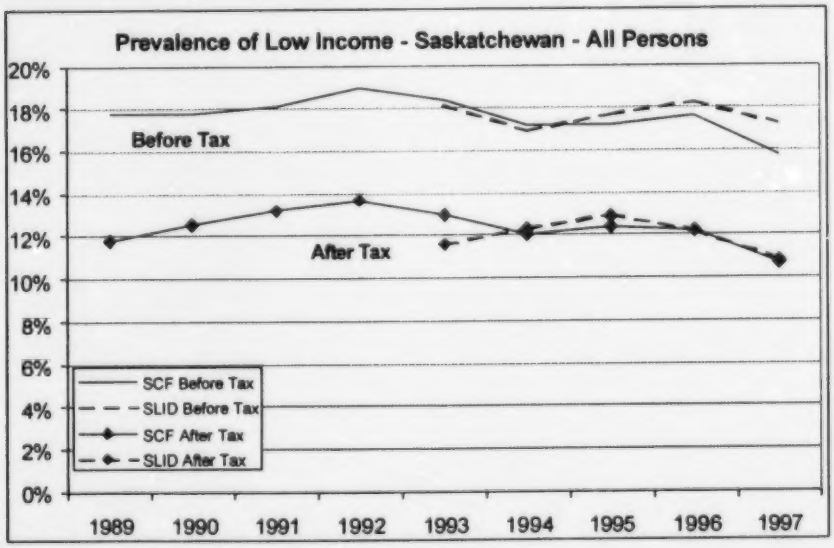

Prevalence of Low Income - Nova Scotia - All Persons
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
Before Tax
After Tax
SCF Before Tax
SLID Before Tax
SCF After Tax
SLID After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997


Prevalence of Low Income - New Brunswick - All Persons
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
Before Tax
After Tax
SCF Before Tax
SLID Before Tax
SCF After Tax
SLID After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997


Prevalence of Low Income - Quebec - All Persons
25%
20%
15%
10%
5%
0%
Before Tax
After Tax
SCF Before Tax
SLID Before Tax
SCF After Tax
SLID After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997


Prevalence of Low Income - Ontario - All Persons
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
Before Tax
After Tax
SCF Before Tax
SLID Before Tax
SCF After Tax
SLID After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997


Prevalence of Low Income - Manitoba - All Persons
25%
20%
15%
10%
5%
0%
Before Tax
After Tax
SCF Before Tax
SLID Before Tax
SCF After Tax
SLID After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997


Prevalence of Low Income - Saskatchewan - All Persons
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
Before Tax
After Tax
SCF Before Tax
SLID Before Tax
SCF After Tax
SLID After Tax
1989
1990
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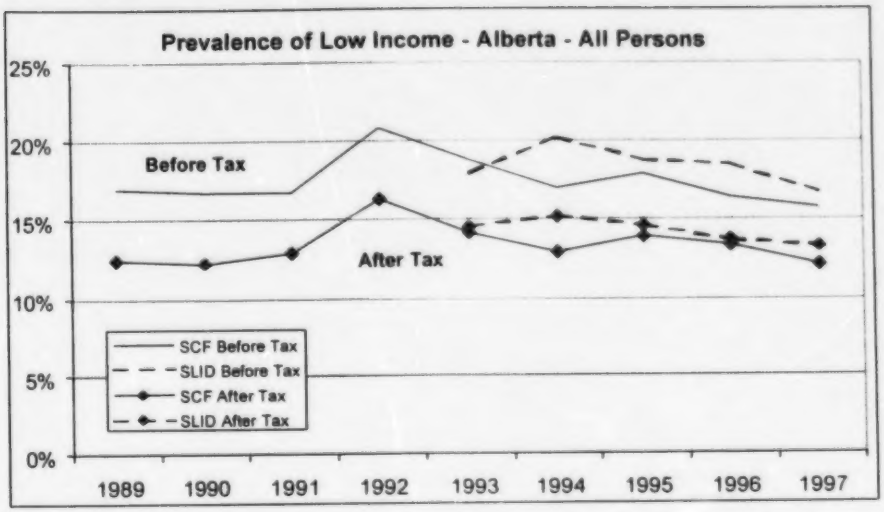
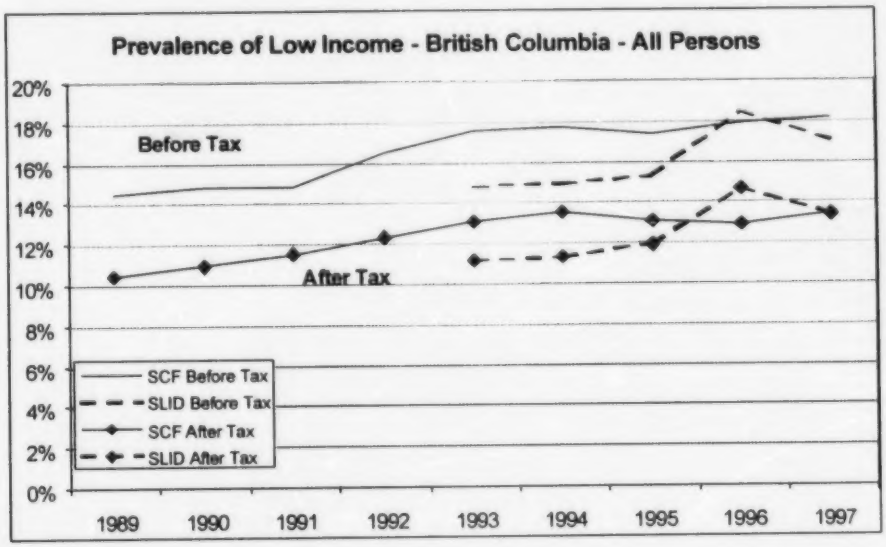
1992
1993
1994
1995
1996
1997


Prevalence of Low Income - Alberta - All Persons
25%
20%
15%
10%
5%
0%
Before Tax
After Tax
SCF Before Tax
SLID Before Tax
SCF After Tax
SLID After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997


Prevalence of Low Income - British Columbia - All Persons
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
Before Tax
After Tax
SCF Before Tax
SLID Before Tax
SCF After Tax
SLID After Tax
1989
1990
1991
1992
1993
1994
1995
1996
1997

3.16 Unattached Individuals and Families – Provinces

Unattached individuals and economic families by province, 1997*

	SLID '000	SCF '000	Difference (SLID - SCF)	
			'000	%
Unattached individuals				
Canada	4,111	4,125	-14	-0.3
Newfoundland	45	36	9	19.2
Prince Edward Island	16	17	-1	-4.9
Nova Scotia	126	115	11	8.6
New Brunswick	78	79	-1	-1.7
Quebec	1,151	1,075	75	6.5
Ontario	1,388	1,455	-67	-4.8
Manitoba	169	157	12	6.8
Saskatchewan	158	146	13	8.0
Alberta	385	398	-13	-3.5
British Columbia	595	545	-51	-8.5
Economic families				
Canada	8,252	8,394	-142	-1.7
Newfoundland	162	166	-3	-2.0
Prince Edward Island	38	38	0	0.4
Nova Scotia	260	272	-11	-4.4
New Brunswick	224	224	0	0.2
Quebec	2,049	2,114	-65	-3.2
Ontario	3,140	3,154	-14	-0.4
Manitoba	292	305	-14	-4.7
Saskatchewan	260	272	-12	-4.5
Alberta	770	782	-12	-1.6
British Columbia	1,055	1,067	-12	-1.1

* As of January 1, 1998 for SLID and April 1, 1998 for SCF

Unattached individuals and economic families by province, 1996*

	SLID '000	SCF '000	Difference (SLID - SCF)	
			'000	%
Unattached individuals				
Canada	3,983	3,944	39	1.0
Newfoundland	43	42	1	2.4
Prince Edward Island	15	18	-3	-16.7
Nova Scotia	117	113	4	3.5
New Brunswick	77	80	-3	-3.8
Quebec	1,141	1,140	1	-
Ontario	1,336	1,283	53	4.1
Manitoba	163	149	14	9.4
Saskatchewan	158	138	20	14.5
Alberta	354	374	-20	-5.3
British Columbia	579	608	-29	-4.8
Economic families				
Canada	8,185	8,317	-132	-1.6
Newfoundland	161	164	-3	-1.8
Prince Edward Island	38	38	-	-
Nova Scotia	260	272	-12	-4.4
New Brunswick	220	221	-1	-0.5
Quebec	2,034	2,081	-47	-2.3
Ontario	3,127	3,164	-37	-1.2
Manitoba	294	302	-8	-2.6
Saskatchewan	260	274	-14	-5.1
Alberta	749	752	-3	-0.4
British Columbia	1,040	1,048	-8	-0.8

* As of January 1, 1997 for SLID and April 1, 1997 for SCF

3.17 Flows into and out of Low Income

The main purpose of this report is to examine the differences in cross-sectional estimates but it is also useful to look at the new information that will be available in SLID because it is a panel survey.

For example, the low income population is not fixed in time and substantial numbers of people cross the low income line in both directions in any given years. About 926,000 persons who were above the low income line in 1996 (about 3.5% of the population) dropped below the line in 1997. Conversely, 1,006,000 (3.8%) moved out of low income in 1997. About 2.2 million persons (8.2%) were below the low income cut-off in both years.

For persons under age 18, the low income rates are higher and the probability of staying below the line for two consecutive years is higher than for the population at large: 513,000 children (9.8%) were in low income in both 1996 and 1997.

Flows into and out of low income (after tax), all ages, 1996 to 1997

	Total %	Below LICO in 1997 %	Above LICO in 1997 %
Total	100.0	11.7	88.3
Below LICO in 1996	12.0	8.2	3.8
Above LICO in 1996	88.0	3.5	84.5

Flows into and out of low income (after tax), persons under 18, 1996 to 1997

	Total %	Below LICO in 1997 %	Above LICO in 1997 %
Total	100.0	13.9	86.1
Below LICO in 1996	13.8	9.8	4.0
Above LICO in 1996	86.2	4.1	82.1

Flows into and out of low income (after tax), persons 18 to 64, 1996 to 1997

	Total %	Below LICO in 1997 %	Above LICO in 1997 %
Total	100.0	11.7	88.3
Below LICO in 1996	12.2	8.1	4.1
Above LICO in 1996	87.8	3.6	84.2

Flows into and out of low income (after tax), persons 65 and over, 1996 to 1997

	Total %	Below LICO in 1997 %	Above LICO in 1997 %
Total	100.0	8.0	92.0
Below LICO in 1996	8.0	6.3	1.7
Above LICO in 1996	92.0	1.7	90.3

3.18 Persistence of Low Income – Years Spent in Low Income

SLID panels last six years, so it is possible to look at the persistence of low income over a longer time period. So far, there are five years of data available for the first panel. The population on December 31, 1992 – at the beginning of the panel and still in scope five years later – was 25.5 million. Of that total, 78% did not spend any of the following five years in low income. The remaining 5.7 million people spent at least one year in low income during the 1993-1997 period. Just over a third of these (2.0 million) spent one year in low income – although some of these would have begun or ended a spell during the five-year "window", so their spell of low income would in fact be more than a year. About 1.1 million spent two years in low income, 770,000 spent three years and 798,000 spent four years. For those spending all five years in low income, the number climbs to 999,000. This pattern supports the idea of different subpopulations within the low income group, some experiencing a transitory financial problem, others, a persistent problem.

Among persons aged 65 and over, the proportion in low income for all five years (3.6%) is almost as high as the proportion in low income during just one of the five years (4.8%).

Persistence of Low Income
Low income persistence: total years spent in low income over 1993-1997 period, all ages

	Persons – All ages	
	'000	%
Population on Dec. 31, 1992	25,452	100.0
Years spent in low income since then:		
0	19,791	77.8
1	1,954	7.7
2	1,141	4.5
3	770	3.0
4	1,798	3.1
5	999	3.9

Low income persistence: total years spent in low income over 1993-1997 period, persons under 18

	Persons under 18	
	'000	%
Population on Dec. 31, 1992	6,536	100.0
Years spent in low income since then: 0	4,777	73.1
1	580	8.9
2	376	5.8
3	233	3.6
4	271	4.1
5	299	4.6

Low income persistence: total years spent in low income over 1993-1997 period, persons aged 18 to 64

	Persons aged 18 to 64	
	'000	%
Population on Dec. 31, 1992	16,508	100.0
Years spent in low income since then: 0	12,938	78.4
1	1,259	7.6
2	711	4.3
3	491	3.0
4	496	3.0
5	613	3.7

Low income persistence: total years spent in low income over 1993-1997 period, persons aged 65 and over

	Persons aged 65 and over	
	'000	%
Population on Dec. 31, 1992	2,408	100.0
Years spent in low income since then: 0	2,076	86.2
1	115	4.8
2	54	2.2
3	46	1.9
4	31	1.3
5	88	3.6

3.19 Movement between Income Quintiles

About one-third of the population were not in the same income quintile in 1997 as they had been in 1996. In other words, their relative position on the income scale shifted. Of those who shifted, 8 in 10 moved up or down by one quintile. But that still leaves 1.8 million people whose income position changed by two or more quintiles. The most common patterns were shifts between the middle and bottom quintile – between 245,000 and 300,000 persons in each direction. Again, this shows a substantial amount of income mobility.

Persons classified by family income quintile in 1996 and 1997
(based on income after tax)
%

Income quintile in 1996	Income quintile in 1997				
	Lowest	2nd	3rd	4th	Top
Lowest	15.1	3.4	0.9	0.4	0.2
2nd	3.0	12.6	3.5	0.6	0.2
3rd	1.1	2.9	11.5	3.8	0.7
4th	0.5	0.8	3.3	12.0	3.4
Top	0.3	0.3	0.8	3.1	15.5

Persons classified by family income quintile in 1996 and 1997
(based on income after tax)
'000

Income quintile in 1996	Income quintile in 1997				
	Lowest	2nd	3rd	4th	Top
Lowest	4,019	903	245	110	41
2nd	793	3,351	936	170	63
3rd	298	759	3,059	1,022	191
4th	125	209	868	3,196	905
Top	80	92	206	816	4,114

3.20 Changes in Income After a Major Life Event

Changes in family income can occur because of labour market events. They can also arise because of changes in family or living circumstances. Close to 275,000 persons experienced a marital separation in 1997. Of those who separated, 35% of the men and 62% of the women suffered a drop in income of more than $5,000 (based on per capita income, adjusted using an equivalence scale). More than one third of the men, but only 15% of the women, had an *increase* of over $5,000 that year. For men and women who did not separate in 1997, nearly half had little or no change in income; this was true for only 12% of the men and 8% of the women who did separate.

An estimated 90,000 people stopped living with a spouse either because the spouse died or was institutionalized. About 33% experienced an income loss of $5,000 or more.

Changes in disposable family income following a major life event, 1996 to 1997: separation from a spouse

%

	Separated from spouse during 1997?			
	Yes		No	
	Men	Women	Men	Women
Total	100.0	100.0	100.0	100.0
Income decreased > $5,000	35.3	62.0	12.1	12.4
Income decreased $2,000-$5,000	8.5	10.4	11.1	11.2
Change in income < $2,000	11.5	8.3	46.7	46.5
Income increased $2,000-$5,000	7.2	4.1	15.3	15.8
Income increased > $5,000	37.5	15.2	14.7	14.1

Changes in disposable family income following a major life event, 1996 to 1997: separation from a spouse

'000

	Separated from spouse during 1997?			
	Yes		No	
	Men	Women	Men	Women
Total	132	144	6,660	6,425
Income decreased > $5,000	47	89	806	797
Income decreased $2,000-$5,000	11	15	740	717
Change in income < $2,000	15	12	3,113	2,991
Income increased $2,000-$5,000	10	6	1,021	1,014
Income increased > $5,000	50	22	980	906

Changes in disposable family income following a major life event, 1996 to 1997: spouse died or institutionalized

%

	Spouse died or was institutionalized during 1997?	
	Yes	No
Total	100.0	100.0
Income decreased > $5,000	32.6	12.9
Income decreased $2,000-$5,000	18.4	11.1
Change in income < $2,000	24.3	46.0
Income increased $2,000-$5,000	8.7	15.4
Income increased > $5,000	16.0	14.6

Changes in disposable family income following a major life event, 1996 to 1997: spouse died or institutionalized

'000

	Spouse died or was institutionalized during 1997?	
	Yes	No
Total	90	13,271
Income decreased > $5,000	29	1,709
Income decreased $2,000-$5,000	17	1,467
Change in income < $2,000	22	6,109
Income increased $2,000-$5,000	8	2,043
Income increased > $5,000	14	1,943